

# **Austria**

## **Annual Report of the National Safety Authority for the year 2010**

in accordance with Article 18 of Directive 2004/49/EC  
“Directive on safety on the Community’s railways”  
transposed by Section 13a Railways Act 1957

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### **A.1. Scope of the report**

This annual report, within the meaning of Directive 2004/49/EC of 29 April 2004, OJEU L164 of 30 April 2004, on safety on the Community's railways, as last amended by Directive 2009/149/EC of 27 November 2009, OJEU L313 of 28 November 2009, and transposed by Section 13a Railways Act 1957 (Eisenbahngesetz (EisbG)), Federal Law Gazette (Bundesgesetzblatt (BGBl.)) No 60/1957, last amended by BGBl. I No 25/2010, covers the activities of the national safety authority (NSA) in respect of the operation of main line railways and minor railways connected to them, the operation of rail vehicles on such railways and traffic on such railways in Austria in the year 2010.

### **A.2. Summary**

In Austria, general duties for railway undertakings and infrastructure managers are laid down in the Railways Act 1957, published in BGBl No 60/1957, as last amended by BGBl. I No 25/2010. Railway undertakings' detailed regulations for the training and behaviour of staff concerned with safety critical tasks are subject to authorisation by the Railway Safety Authority (Eisenbahnsicherheitsbehörde).

The Accident Investigation Bureau (Unfalluntersuchungsstelle (UUS)) set up in accordance with the Accident Investigation Act (Unfalluntersuchungsgesetz), published in BGBl I No 123/2005, started its work as an independent body to investigate accidents and incidents in accordance with Article 21 of the Safety Directive on 1 January 2006.

The UUS collects safety indicators relating to accidents, incidents and near-misses, and relating to the technical safety of infrastructure and its implementation.

Safety performance at Member State level is monitored at different levels, e.g. by an approval process for subsystems, maintenance rules, and accident and incident investigation. Railway undertakings and infrastructure managers have to fulfil obligations for periodic checks, reviews and inspections as well as internal controls. Furthermore, safety performance is individually checked in the event of certain incidents.

The Federal Ministry of Transport, Innovation and Technology (Bundesministerium für Verkehr, Innovation und Technologie (BMVIT)), acting as the NSA, authorises putting subsystems into service, controls the operation of railway undertakings and infrastructure

managers, supervises the compliance of technical equipment, authorises bringing new or substantially altered rolling stock into service and monitors, promotes and develops the safety regulatory framework, notwithstanding the general responsibility of the railway undertakings and infrastructure managers themselves.

Existing, new and updated national safety rules are published on the website of the Federal Ministry of Transport, Innovation and Technology ([www.bmvit.gv.at/en/verkehr/railway/index.html](http://www.bmvit.gv.at/en/verkehr/railway/index.html)).

The Austrian National Safety Authority's Annual Report concerns its activities in 2010 in accordance with the Directive on safety on the Community's railways (Directive 2004/49/EC, Railway Safety Directive).

The report contains comprehensive information on the railway system in Austria. This is shown in Parts A, B and C and also in the related annexes.

Safety recommendations as a result of investigations into accidents, incidents and near-misses during the reporting year are listed in Part D.

Part E reports important changes in legislation and regulation concerning railway safety in 2010.

The development of safety certification and safety authorisation is shown in Part F. Annex E refers to safety certification.

A description of the results of and experience with the supervision of infrastructure managers and railway undertakings is given in Chapter G.

Part H provides initial comments on the application of the common safety method (CSM) to risk evaluation and assessment.

## **B. Introductory section**

### **1. Introduction to the report**

Article 18 of Directive 2004/49/EC, transposed by Section 13a Railways Act 1957, provides the statutory basis for drawing up the annual report:

#### **Annual report**

***Section 13a.** (1) The Federal Minister for Transport, Innovation and Technology shall prepare a report every year on his activities during the previous year in respect of the operation of main line railways and minor railways connected to them, the operation of rail vehicles on such railways and traffic on such railways. The annual report shall be published on the internet on the website of the Federal Minister for Transport, Innovation and Technology at the latest by 30 September of the calendar year following the year to which the report refers and shall also be submitted to the European Railway Agency.*

*(2) The annual report shall contain the following information:*

- 1. an aggregation of the common safety indicators in accordance with Annex I to Directive 2004/49/EC;*
- 2. important changes in federal legislation and regulations made on the basis of federal law which relate to the construction or operation of the railways listed in paragraph 1, the operation of rail vehicles on such railways and traffic on railways;*
- 3. developments regarding safety certification and safety authorisation;*
- 4. results of and experience with the supervision of infrastructure managers and railway undertakings.*

In addition, in accordance with Article 9 of Regulation (EC) 2009/352 of 24 April 2009 on the adoption of a common safety method (CSM) on risk evaluation and assessment, the experience of the proposers with the application of the CSM on risk evaluation and assessment, and, where appropriate, its own experience is to be reported.

The annual report within the meaning of the directive is based on an evaluation of the Federal Accident Investigation Bureau's data in accordance with Section 13a (3) Railways Act:

*“Section 13a (3) The Accident Investigation Bureau (Section 3 Accident Investigation Bureau Act, BGBl. I No 123/2005) shall make available to the Federal Minister for Transport, Innovation and Technology, in electronic form, the data necessary for aggregating the common safety indicators for the year at the latest by 30 June of the calendar year following the year to which the report refers.”*

and an evaluation of the safety reports in accordance with Section 39d Railways Act:

### **Safety report**

*Section 39d. Each year, before 30 June, railway undertakings which have their registered office in Austria and infrastructure managers which have their registered office in Austria shall submit to the authorities a safety report for the previous calendar year which shall contain the following:*

- 1. information on how the organisation's corporate safety targets are met;*
- 2. the Austrian and common safety indicators in so far as they are relevant to the railway undertaking in question;*
- 3. the results of internal safety audits;*
- 4. observations on deficiencies and malfunctions which have compromised the safety of railway operations, the operation of rail vehicles on the railway or traffic on the railway.*

The annual report is prepared in accordance with documents issued by the European Railway Agency:

- Template - Structure for the content of the NSA Annual Safety Report
- Guideline for the use of the template - Structure for the content of the NSA Annual Safety Report

## **2. Railway structure information**

- Annex A.1. contains a map of the rail network;
- Annex A.2. lists the railway undertakings (RU) and infrastructure managers (IM).

### **3. Summary – general trend analysis**

The following paragraphs summarise the development of the common safety indicators between 2006 and 2010 insofar as the data available so allows.

Seventy-nine severe accidents within the scope of the Railway Safety Directive were reported in 2010. By comparison with the previous years (since 2006), this indicates a continuing falling trend.

The total number of fatalities (30) and the number seriously injured (49) in 2010 indicates a slightly falling trend by comparison with the previous years (since 2006). Both fatalities and the number seriously injured in 2010 were at their lowest levels since 2006.

“Users of level crossings” and “trespassers on railway property” formed the largest categories of persons seriously injured and killed.

Annex C.1. contains data on the individual CSIs for 2010 and notes referring to the various common safety indicators.

## **C. Organisation**

### **1. Introduction to the organisation**

#### **National safety authority for safety authorisation and safety certification**

(for railway infrastructure managers of main line railways and railway undertakings which are authorised to operate on main line railways and minor railways connected to them):

Federal Minister of Transport, Innovation and Technology (Bundesministerin für Verkehr,  
Innovation und Technologie) (BMVIT)

Radetzkystraße 2

A-1030 Wien (Vienna)

Tel.: +43-1-71162-65-0

Fax: +43-1-71162-652899

Email: [iv-sl@bmvit.gv.at](mailto:iv-sl@bmvit.gv.at)

Web: [www.bmvit.gv.at/verkehr/eisenbahn](http://www.bmvit.gv.at/verkehr/eisenbahn)

Section 12(3) Railways Act defines the competence of the Federal Minister of Transport, Innovation and Technology as a safety authority.

#### **Other safety authorities:**

(the Governor (Landeshauptmann) of the relevant Federal Province (there are nine in total) is the railway safety authority for infrastructure managers who only manage minor railways connected to main lines):

Governor of Burgenland (Landeshauptmann von Burgenland),  
Landhaus,  
A-7000 Eisenstadt

Governor of Carinthia (Landeshauptmann von Kärnten),  
Arnulfplatz 1,  
A- 9021 Klagenfurt



Governor of Lower Austria (Landeshauptmann von Niederösterreich),  
Landhausplatz 1,  
A-3109 St. Pölten

Governor of Upper Austria (Landeshauptmann von Oberösterreich),  
Landhausplatz 1  
A- 4021 Linz

Governor of Salzburg (Landeshauptfrau von Salzburg)  
Chiemseehof  
A-5010 Salzburg

Governor of Styria (Landeshauptmann der Steiermark)  
Hofgasse 15  
A-8010 Graz

Governor of the Tyrol (Landeshauptmann von Tirol)  
Eduard-Wallnöfer-Platz 3  
A-6020 Innsbruck

Governor of Vorarlberg (Landeshauptmann von Vorarlberg)  
Landhaus  
A-6900 Bregenz

Governor of Vienna (Landeshauptmann von Wien)  
Lichtenfelsgasse 2  
A-1010 Wien (Vienna)

Section 12(2) Railways Act defines the competence of Governors as safety authorities.

**Labour inspectorate:**

Federal Ministry of Transport, Innovation and Technology (BMVIT)  
Section IV/Transport Labour Inspectorate Group (Sektion IV / Gruppe Verkehrs-  
Arbeitsinspektorat)  
Radetzkystraße 2  
A-1030 Wien (Vienna)  
Tel.: +43-1-71162-654500  
Fax: +43-1-71162-654499  
Email: v1@bmvit.gv.at  
Web: www.bmvit.gv.at/vai

**Federal Accident Investigation Bureau:**

Accident investigating body within the meaning of Directive 2004/49/EC for the investigation of accidents and incidents on the railway system:

Federal Office of Transport (Bundesanstalt für Verkehr)  
Accident Investigation – Rail Section (Unfalluntersuchung Fachbereich Schiene)  
Trauzlgasse 1  
A-1210 Wien (Vienna)  
Tel.: +43-1-71162-659150  
Fax: +43-1-71162-659298  
Email: uus-schiene@bmvit.gv.at  
Web: versa.bmvit.gv.at

The statutory bases are contained in the Accident Investigation Act (BGBl. I No 123/2005) and Rail Accident Reporting Regulation 2006 (MeldeVO-Eisb 2006) (BGBl. II No 279/2006).

The Reporting Regulation governs:

***Article 1.** ... the scope and form of reports of accidents and incidents which arise during the operation of a main line or minor railway (Section 4 Railways Act 1957, BGBl. No 60), a connecting railway (Section 7 Railways Act 1957, BGBl. No 60) or a tramway which operates*

*exclusively on its own formation, such as underground railways (Section 5 para. 1 Z 2, Railways Act 1957, BGBl. No 60) or in the operation of rail vehicles on such railways.*

## **Rail Regulator:**

Rail Control Commission (Schienen-Control Kommission (SCK)),  
Rail Control, Austrian Company for Rail Market Regulation (Schienen-Control,  
Österreichische Gesellschaft für Schienenmarktregulierung mit beschränkter Haftung)  
(Schienen-Control GmbH)  
Praterstraße 62-64  
A-1020 Wien  
Tel.: +43-1-5050707-0  
Fax: +43-1-5050707-17  
Email: [office@schienencontrol.gv.at](mailto:office@schienencontrol.gv.at)  
Web: [www.schienencontrol.gv.at](http://www.schienencontrol.gv.at)

The SCK is the Austrian regulatory body pursuant to Directive 2001/14/EC, Article 20\*, and was established by the Railways Act in 1999.

## **2. Organisation chart**

Annex B.1. contains the organisation chart for the Federal Ministry of Transport, Innovation and Technology as the national safety authority.

Annex B.2. contains the organisation chart for the Federal Office of Transport's Accident Investigation Bureau.

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\* Translator's note: [sic]

## D. The development of railway safety

### 1. Initiatives to maintain/improve safety performance

The following section lists the most important safety recommendations<sup>1</sup> made in accident investigation reports in 2010:

*Table D.1 – Safety recommendations made on the basis of an accident/accident precursors*

Accidents/accident precursors which triggered the measure			Safety recommendation <sup>1)</sup>
Date	Place	Description of the event	
31.10.07	Salzburg, between Mallnitz-Obervellach and Blöckstein	<b>Derailment</b> of train 54352	<ul style="list-style-type: none"> <li>• Create a standard set of regulations for maintenance.</li> <li>• Investigate whether an appropriate state of the art test of the centre of the wheel for particular thermally overheated wheels (magnetic powder test or eddy current test, for example) should be carried out in addition to residual stress measurement</li> <li>• Investigate whether measures to mark centres of wheel that have already overheated are necessary.</li> <li>• Investigate whether fitting derailment detectors to wagons permanently used for the movement of dangerous goods (tank wagons, for example) is necessary.</li> <li>• Investigate whether fixed-position derailment detectors (for example, the ÖBB Infrastruktur AG prototype) should be installed before sensitive locations (such as tunnels and bridges, etc.). Submit an appropriate plan to the competent authorities for approval.</li> <li>• Use 75% of the P value (in accordance with UIC leaflet 544-1) for G braked vehicles instead of the 80% currently used in the basic standards for braking calculations.</li> <li>• Investigate whether a standard is required to enforce taking the correction factor <math>\kappa</math> (kappa, in accordance with UIC leaflet 544-1 Appendix K2) into account when calculating braked weight percentage for freight trains longer than 500m.</li> <li>• Review whether the provisions for conditioning brakes (tread brakes with K brake blocks and disc brakes) and the provisions for the approach to downhill sections are adequate.</li> <li>• Investigate whether additional provisions to DV M26 "Running downhill (gradients, steep sections)" should be considered because of line improvement measures.</li> <li>• Review whether safety recommendation A-53/2010 should be included in a set of regulations to be approved by the authorities.</li> <li>• Ensure that when an expert is commissioned, the test samples provided for the investigation are not disposed of after the</li> </ul>

<sup>1)</sup> safety recommendations which the Accident Investigation Bureau had made at the time the report went to press are shown, they do not yet represent commitments to take action on safety measures however.

Accidents/accident precursors which triggered the measure			Safety recommendation <sup>1)</sup>
Date	Place	Description of the event	
			<p>investigation is complete but rather returned to the client.</p> <ul style="list-style-type: none"> <li>• Train staff members to take account of attaching and detaching the traction unit in particular when collecting the train data.</li> <li>• Review the K value used (calibration value for the system used for measuring residual stress) and the permitted limit values when measuring residual stress.</li> </ul>
18.10.08	Lower Austria, Pöchlarn	<b>Derailment</b> of train 54091	<ul style="list-style-type: none"> <li>• Train shunting staff through in-service training.</li> <li>• Investigate whether a measure for the homogeneity of brakes (of vehicles) in freight trains can be achieved using internal and/or external experts and by reference to the following parameters in combination: <ul style="list-style-type: none"> <li>- vehicles in the "G" or "P" brake regime</li> <li>- empty and loaded vehicles</li> <li>- isolated brakes on individual vehicles</li> <li>- varying braking percentages on individual vehicles such as, for example: wagon marked "s" (<math>\lambda \leq 70\%</math>) or "ss" (<math>\lambda = 90\%</math> for a 20 t axle load for tread-braked wheels).</li> <li>- wagons with an axle load of 22.5t or 25t</li> <li>- position (of wagons) in the train.</li> </ul> </li> <li>• Investigate whether the provisions of UIC leaflet 540 are met by braking a train in "G" regime by using the electrodynamic brakes on the traction unit.</li> <li>• Investigate whether determining the brake performance of locomotives of classes 1016/1116 in brake regime "G+E" and marking it on the locomotive is necessary.</li> <li>• Investigate whether a standard is required to enforce taking the correction factor <math>\kappa</math> (kappa, in accordance with UIC leaflet 544-1 Appendix K2) into account when calculating the braked weight percentage for freight trains longer than 500m.</li> <li>• Investigate whether the standard for evaluating wagons in brake regime "G" in trains must use the 0.75 factor specified in UIC leaflet 544-1, point 9.2.5. Currently, a factor of 0.8 is used in accordance with ÖBB DV 610 Appendix 3.</li> </ul>
31.10.08	Carinthia, Gummern	<b>Derailment</b> of train 45818	<ul style="list-style-type: none"> <li>• Railway undertakings should ensure that they focus on broken suspension springs or heavy traces of wear on the top of the spring buckle of the running gear in the centre of the vehicle when making a technical examination of vehicles of series 4293 of type Laes<sup>559</sup> and country code 80 in operation.</li> <li>• Owners of vehicles of series 4293 of type Laes<sup>559</sup> and country code 80 are to take measures to ensure that: <ul style="list-style-type: none"> <li>- no cars are loaded directly on the bridge between adjacent wagons and that cars are loaded in a position which provides an adequate distance from the bridge;</li> <li>- the permitted axleload is adhered to.</li> </ul> </li> <li>• Owners of vehicles of series 4293 of type Laes<sup>559</sup> and country code 80 are to take measures to ensure that the vehicles do not run over tracks with a radius of less than 150 m.</li> <li>• Owners of vehicles of series 4293 of type Laes<sup>559</sup> and country code 80 are to ensure that when these vehicles undergo maintenance, the emphasis is placed on checking: <ul style="list-style-type: none"> <li>- whether the suspension spring is broken, whether there is</li> </ul> </li> </ul>

Accidents/accident precursors which triggered the measure			Safety recommendation <sup>1)</sup>
Date	Place	Description of the event	
			<p>abrasion on the spring buckle, whether the spring buckle is free of cracks, and on examining the leaves of the suspension spring on the running gear of the central axle and</p> <ul style="list-style-type: none"> <li>- whether the construction of the bridge between wagons/supporting pin/linking bolt is damaged and what the condition of these is compared with the drawings</li> </ul> <p>Checks should be carried out at least once a year.</p>
20.01.09	Tyrol, Sillian	<b>Derailment</b> of train 1873	<ul style="list-style-type: none"> <li>• Apply the ÖBB DV B29 set of internal regulations.</li> <li>• Ensure that contractors removing snow from operational sites (for example, clearing of platforms) do not put the snow on the track but rather pile it in the intended places or remove it (two incidents on 3 February 2009 in Maria Elend in the Rosental).</li> <li>• In the course of checking access to the network, the infrastructure manager's network access office must ensure that only those vehicles that are suited to the infrastructure run on it (for example, suited to deep snow). As necessary, the infrastructure manager is to draw up appropriate technical guidelines or impose restrictions.</li> <li>• Ensure that the design of snow ploughs and mounting arrangements on locomotives, multiple units and driving trailers are suitable for the depth of snow specified in ÖBB regulations DV B29 point 55 (50 cm above rail height). If this is not the case, operational measures must be used to ensure that the level of snow does not reach this height above the track (for example, by repeated passes of a snow plough).</li> <li>• Check whether significant parts of the ÖBB DV B29 internal regulations should be turned into "Supplementary Provisions to the Signalling and Operating Regulations".</li> <li>• Revise ÖBB internal regulations DV B29 to bring them up to date.</li> <li>• Investigate whether heating should be installed to keep the track across particular level crossings free of ice on sections of line affected by bad weather.</li> <li>• Correct the operating location description for Sillian station. Line section 40701 is not a main line.</li> <li>• Ensure that Sillian station is equipped with a functioning signal lamp.</li> <li>• Ensure that collection of train data and brake calculations conform to the regulations.</li> <li>• The procedural instructions for operations in winter must be put into a set of regulations which are comprehensible to all the staff members affected.</li> </ul>
02.03.09	Lower Austria, between Irrnritz and Hötzelndorf-Geras	<b>Derailment</b> of train 2101	<ul style="list-style-type: none"> <li>• In the course of checking access to the network, the infrastructure manager's network access office must ensure that only those vehicles that are suited to the infrastructure run on it (for example, suited to deep snow). As necessary, the infrastructure manager is to draw up appropriate technical guidelines or impose restrictions.</li> <li>• Ensure that the design of snow ploughs and mounting arrangements on locomotives, multiple units and driving trailers</li> </ul>

Accidents/accident precursors which triggered the measure			Safety recommendation <sup>1)</sup>
Date	Place	Description of the event	
			<p>is suitable for the depth of snow specified in ÖBB regulations DV B29 point 55 (50 cm above rail height). If this is not the case, operational measures must be used to ensure that the level of snow does not reach this height above the track (for example, by erection of snow fences, by repeated passes of a snow plough or by putting traction units on the front of trains).</p> <ul style="list-style-type: none"> <li>• Make drivers aware that the infrastructure manager should be informed in the event of peculiarities on the line such as drifting snow and the build-up of snow cornices.</li> </ul>
26.03.09	Lower Austria, Kritzendorf	<b>Collision</b> of train 21023 with train 48007	<ul style="list-style-type: none"> <li>• The restrictive speed monitoring offered by type PZB 90 train control provides significantly better control over the approach speed to a stop signal showing a stop aspect. It is therefore recommended that design PZB 60 is progressively replaced by PZB 90 in traction units and driving trailers.</li> <li>• To supplement the vigilance monitoring provided by the PZB 90, it is recommended that line sections be equipped with 500 Hz magnets. The restrictive speed monitoring of the PZB 90 will be enhanced by additionally equipping the track with a 500 Hz magnet. Hence any possible improper release of the driver from restrictive monitoring and any excessive acceleration will be counteracted as the train approaches a signal showing stop.</li> <li>• Rebuilding of the installations in Kritzendorf station which had been planned for mid 2009, the upgrading of subsidiary signals Sch 2 and Sch 4 with repeaters including 1000 Hz PZB installations (see point 11) had not taken place by 24 February 2010. It is recommended that this work be carried out before the middle of 2010 at the latest.</li> <li>• It is recommended that an investigation be carried out to check if there is a similar situation to that in Kritzendorf station in other operating locations on main lines or high capacity lines (platform area, subsidiary signals and stop signals behind them), in which although the visibility of the stop signal is adequate (in accordance with ÖBB DV S60), the stop signal cannot be clearly distinguished from the platform area or from the subsidiary signal in advance. In any such cases, upgrading with repeater signals with 1000 Hz PZB installations or equipping the track with 500 Hz PZB installations (safety recommendation A-63/2010) should be undertaken. This would represent support for train drivers in their observation of signals and also an effective increase of the vigilance monitoring of the PZB 90. The approach speed up to a stop signal with a stop aspect would therefore be restricted to the lower speed range.</li> <li>• In accordance with the current planning criteria in ÖBB DV S60, upgrading with repeaters, including 1000 Hz PZB installations, is not necessary. From the safety viewpoint, however, it is necessary to help drivers observe signals in particularly dangerous parts of the network. On sections of line with PZB operation, a repeater signal with a linked 1000 Hz PZB installation is a relatively simple technical option. It is recommended that the current planning criteria (the ÖBB DV S60) be reviewed to check that they conform to the state of the</li> </ul>



Accidents/accident precursors which triggered the measure			Safety recommendation <sup>1)</sup>
Date	Place	Description of the event	
			art and the statutory framework (ASchG, for example).
08.04.09	Lower Austria, between Neufeld an der Leitha and Ebenfurth	<b>Derailment</b> of train 41186	<ul style="list-style-type: none"> <li>• Undertake maintenance work to remedy immediate action limits by mechanical means in the medium to long term; work to be documented in a manner that can be verified technically.</li> <li>• Review whether measurements obtained by mechanical measurement must be aligned with line sections.</li> <li>• Define immediate action limits for the cross level (cant) in accordance with the draft conventional rail infrastructure TSI.</li> <li>• Review whether, in defining immediate action limits for the cross level (cant) the findings of ORE B55/RP8, Figure 7 should be reflected in DB IS 2.</li> <li>• Review ÖBB-DB IS 2 in respect of the permitted maintenance parameters (intervention limit and immediate action limit) for the permitted track twist in conjunction with cant.</li> <li>• Install a fixed installation for lubricating the running edge of the rail on this section of line.</li> <li>• Ensure that the condition of the couplings in trains complies with the provisions of DV V3 Article 16, paragraph 4 (no slack couplings).</li> <li>• Install red edging around the hand brake indicator to show that the hand brake can be operated from the ground.</li> <li>• Review whether the marking of traction/braking force stages on the recording devices on traction units can be amended.</li> <li>• Ensure compliance with the rules for securing loads in accordance with the RIV loading instructions.</li> <li>• Investigate whether wagons complying with the TSI rolling stock - freight wagons or the RIV and wagons accepted under agreements may run on sections of line complying with the TSI infrastructure high-speed rail system without taking ORE B55/RP8 into account.</li> <li>• Investigate whether track alignment regulations (for example ÖBB-DB 50-2) must be revised so that the cant is limited as a function of the radius.</li> <li>• Investigate whether it would be appropriate to reduce current levels of cant on particular sections of line (for example, the Semmering section).</li> <li>• Review the maintenance regulations (for example, ÖBB-DB IS 2) in respect of the permitted maintenance parameters (intervention limit and immediate action limit) for the permitted track twist in conjunction with cant.</li> <li>• Install fixed installations for the lubrication of the running edge of rails in particular on susceptible sections of line (tight radius and high cant and in particular stations with exceptional track alignment).</li> <li>• Ensure that after work on the track (for example, new track, replacement of rails, etc.) the rail edge is adequately lubricated before release to traffic.</li> <li>• The TSI Infrastructure must take cant, dependent on the radius of the curve, into account in addition to permitted twist.</li> <li>• Review EN 13803-1 in relation to twist and permitted cant, dependent on the radius of the curve.</li> </ul>



Accidents/accident precursors which triggered the measure			Safety recommendation <sup>1)</sup>
Date	Place	Description of the event	
05.07.09	Tyrol, Innsbruck	<b>Collision</b> of train 53336 with construction plant	<ul style="list-style-type: none"> <li>Evaluate the Operating and Construction Instructions (Betra) for construction sites using construction plant.</li> <li>Investigate whether parts of DB 601.02, Appendix 9 "Guidelines to evaluate measures where the vehicle size limits are exceeded" should not be included in a set of regulations requiring approval by the authorities.</li> <li>Operational management's supervisory bodies to conduct random checks on Betra requirements.</li> </ul>
16.07.09	Tyrol, between Fritzens-Wattens and Innsbruck	<b>Brake problems</b> train 43850 (RoLa)	<ul style="list-style-type: none"> <li>Investigate the positioning of the air brake shut-off cocks.</li> <li>Investigate the turning moment on air brake shut-off cocks and as necessary replace the springs on air shut-off cocks.</li> <li>Investigate the processes involved in loading so that lorries are not loaded onto or unloaded off RoLa wagons during or after the brake test.</li> <li>Regular inspection of the end position of air shut-off cocks on RoLa wagons by wagon technical staff when testing brakes and making departure examinations.</li> <li>Coupling of both train pipes between wagons in RoLa trains.</li> </ul>
31.07.09	Styria, between Peggau-Deutschfeistritz and Gratwein-Gratkorn	<b>Unprotected level crossing</b>	<ul style="list-style-type: none"> <li>Ensure that the following modifications are made to level crossing safety installations of the same type and functionality: <ul style="list-style-type: none"> <li>installation of over-voltage protected components.</li> <li>update the version of the software in accordance with the declaration of 30 August 2009 under Railways Act 1957, Section 40 (relates to staff qualifications) <ul style="list-style-type: none"> <li>BUES2000 firm ...</li> <li>Electronic signalling centre interface "interlock track x, direction y".</li> </ul> </li> </ul> </li> </ul>
26.08.09	Styria, Knittelfeld	<b>Person killed</b> by train 732	<ul style="list-style-type: none"> <li>Investigate whether the use of coaches with jack-knife doors such as those on the Bmz in question is permitted in Austria under EisbBBV, Article 25, para. 2.</li> <li>Investigate whether coaches used in Austria must also have a central locking system (in accordance with UIC leaflet 560 point 3.2.1.2.) such as allows doors to be locked on the platform side during station stops and to be locked on both sides during stops on plain line (selective door locking).</li> </ul>
10.09.09	Vienna, Matzleinsdorf	<b>Collision</b> of train 26471 with a works train	<ul style="list-style-type: none"> <li>Revise ÖBB-DV V3, Article 96 (track under repair), para. 1 (permit for track in stations) since up till now only a section of plain line may be taken out of service and declared as track under repair using Betra.</li> </ul>
11.01.10	Upper Austria, Sattledt	<b>Derailment</b> of train 3220	<ul style="list-style-type: none"> <li>Investigate the options for a technical solution for registering (recording) the interaction of a trailable one-way set of points with the level crossing safety installation (WUS) to which it is linked and the proper functioning of the level crossing safety installation in accordance with the regulations (lamp failure).</li> </ul>
27.01.10	Vienna, Vienna Central	<b>Derailment</b> of train 54701	<ul style="list-style-type: none"> <li>Make the staff concerned aware that safety equipment must be removed in accordance with the regulations.</li> <li>Train the staff concerned on the classification, reporting and</li> </ul>

Accidents/accident precursors which triggered the measure			Safety recommendation <sup>1)</sup>
Date	Place	Description of the event	
	Marshalling Yard		<p>implementation of the necessary measures in such events.</p> <ul style="list-style-type: none"> <li>• Review whether the GCU deals with the measures for handling derailed wagons adequately.</li> <li>• Investigate whether derailed wagons of foreign wagon keepers may continue to run on the Austrian rail network without appropriate investigation and maintenance.</li> <li>• Investigate whether the handling of derailed wheelsets must be specified in ZSB 31.</li> <li>• Investigate whether a main-line regulation (high capacity line section, trans-European networks, etc.) is necessary to clarify unequivocally the competence of the authorities under Section 4 of the Railways Act.</li> <li>• Review the operating location description for Vienna Central Marshalling Yard, to see if <ul style="list-style-type: none"> <li>- the sections of line shown are main or minor pursuant to Section 4 of the Railways Act ,</li> <li>- the distance information is correct.</li> </ul> </li> </ul>
28.01.10	Lower Austria, between St. Valentin and Amstetten	<b>Collision</b> of train 663 with an eddy of ballast	<ul style="list-style-type: none"> <li>• Adapt the regulations in line with the findings of DB AG, such as for example the need to sweep out sleepers between the rails.</li> <li>• Ensure that before the onset of winter (in parts of Austria and other adjacent countries) measures in accordance with A-071/2010 have been undertaken.</li> <li>• Ensure that blocks of snow and ice are regularly removed from rolling stock (for example stabling in heated sheds, under-floor cleaning).</li> <li>• Consider whether operating measures such as a reduction in speed to Vmax = 160 km/h should be taken if there are snow or ice blocks on rolling stock.</li> </ul>
15.02.10	Lower Austria, between Pöchlarn and Ybbs	<b>Collision</b> Train 68 with a piece of metal	<ul style="list-style-type: none"> <li>• Ensure that the sealing caps on the effluent tanks of controlled emission toilets are properly re-secured by the staff of the undertaking emptying the tank.</li> <li>• Ensure that missing or damaged safety chains or safety cords for effluent tank sealing caps are replaced before coaches are formed into trains.</li> </ul>
17.04.10	Upper Austria, between Wackersbach and Prambachkirchen-Bad Weinberg	<b>Derailment</b> of train 71006	<ul style="list-style-type: none"> <li>• Investigate whether it is appropriate to reduce the existing cant on particular sections of line.</li> <li>• Review the regulations for maintenance in respect of the permitted maintenance parameters (intervention limit and immediate action limit) regarding the permitted track twist in connection with the cant and direction.</li> <li>• Investigate whether marking the loading limit D with an axle load of 21.0 t for this vehicle series is permitted given the axle used.</li> <li>• Investigate whether the maximum speed of 40 km/h laid down in the book timetable by means of a general order may be raised to 50 km/h on the basis of a higher braking effort.</li> </ul>
30.04.10	Lower Austria, St. Pölten	<b>Collision</b> of elements being shunted with subsequent	<ul style="list-style-type: none"> <li>• Check the extent to which track in "secondary sites" (for example, loading sidings, private sidings, workshop sidings, traction depots, etc.) should be omitted from the programming options in ABUM.</li> </ul>

Accidents/accident precursors which triggered the measure			Safety recommendation <sup>1)</sup>
Date	Place	Description of the event	
		derailment	<ul style="list-style-type: none"> <li>Until the above-mentioned safety recommendation is implemented, switches which lead to tracks defined in operating location descriptions as "secondary sites" are to be individually clipped closed.</li> <li>Organise the symbols for the programming of ABUM on the screens of signalling installations in such a way that, as far as possible, they cannot be confused.</li> <li>Make staff members aware of the need to check speeds when shunting.</li> </ul>
16.06.10	Vorarlberg, between Braz and Hintergasse	<b>Derailment</b> of train 46676	<ul style="list-style-type: none"> <li>Ensure that for car transporter wagons of type 23 87 437 2 xxx-x and with country code "F" which have this or a similar design of linkage and suspension of the brake coupling between the two wagon halves (images 3 and 4): <ul style="list-style-type: none"> <li>Safe suspension and securing is possible (two cable clips fitted, cable clips firmly secured, undamaged cable and securing loop),</li> <li>the brake coupling is located in a position which provides a high degree of safety,</li> <li>a minimum distance of 140 mm is provided between the upper surface of the rail and parts of the screw coupling, parts of the brake coupling and the support system.</li> </ul> </li> <li>These features should be checked during technical inspections of wagons of type 23 87 437 2 xxx-x and with country code of "F" en-route and during special examinations in the vehicle owner's servicing workshops.</li> <li>For car transporter wagons of type 23 87 437 2 xxx-x and with country code of "F" which have this or a similar design of linkage and suspension of the brake coupling between the two wagon halves (images 3 and 4), it is recommended as a medium term measure that the brake coupling between the two parts of the wagon be replaced by a through air pipe without a brake coupling.</li> </ul>
29.06.10	Upper Austria, Munderfing	<b>Collision</b> of train 72366 with a lorry on level crossing	<ul style="list-style-type: none"> <li>Hold special information sessions on site about level crossings in general and the proper behaviour of road users in particular (e.g. in communities, in schools, at the site itself, etc.)</li> <li>Implement the executive forces' [police etc.] "focused action campaign" on site at the level crossing.</li> </ul>
06.07.10	Carinthia, Wolfsberg	<b>Collision</b> of train 4530 with a cyclist on level crossing	<ul style="list-style-type: none"> <li>Review the road and rail aspects of the level crossing. In particular this should include evaluation of the 1999 decision in the light of current provisions, for example <ul style="list-style-type: none"> <li>the type of protection (e.g. approved design, protection available in line with current traffic conditions and possible changes in the parameters such as train and road traffic volumes etc.).</li> <li>the situation of the technical equipment and signs/signals for road traffic and road markings (e.g. their positioning, visibility of installations, etc.).</li> </ul> </li> </ul>
27.07.10	Lower Austria,	<b>Electrical accident</b>	<ul style="list-style-type: none"> <li>Ensure that an evaluation in accordance with Section 4 in conjunction with Section 7 ASchG is always carried out.</li> </ul>

Accidents/accident precursors which triggered the measure			Safety recommendation <sup>1)</sup>
Date	Place	Description of the event	
	Strasshof		<ul style="list-style-type: none"> <li>Investigate whether safety supervision is required in such cases.</li> <li>Ensure that, during work in which a track closure is imposed to protect staff, signals as laid down in DV V2, Article 31, para.4 – VEHICLE MUST NOT BE MOVED - or Article 36, para.1 – HALT - are used.</li> <li>Investigate whether in such cases as a protective measure for the staff of outside companies the "No movements" sign laid down in DV V3, Article 88 must be used.</li> <li>Ensure that appropriate protective clothing and equipment is made available to the staff of outside companies who are carrying out contract work and that they also use it.</li> </ul>
05.09.10	Burgenland, Eisenstadt	<b>Collision</b> of train 2622 with a car on level crossing	<ul style="list-style-type: none"> <li>Investigate whether the road sign "AUTOSTRASSE" should be placed after the level crossing.</li> </ul>

## 2. Detailed data trend analysis

This section contains an analysis of the data in respect of all the CSI categories:

- Number of significant accidents;
- Number of fatalities;
- Number of seriously injured;
- Number of incidents and near misses
- Costs of all significant accidents related to safety
- Technical safety of the infrastructure and its implementation, safety management

Annex C gives details of the coverage of the statistics, the definitions used and the data on the Common Safety Indicators (CSI).

## 3. Results of safety recommendations

In addition to the safety recommendations which were implemented directly, the following measures, in particular, were carried out by the authorities during the year 2010 as a result of safety recommendations made by the Accident Investigation Bureau:

Date	Place	Description of the incident	Safety recommendation(s)	Implementation of the safety recommendations
31.07.09	Styria, between. Peggau-Deutschf. and Gratwein-Gratkorn	Unprotected level crossing	<ul style="list-style-type: none"> <li>• Ensure that the following modifications are made to level crossing safety installations of the same type and functionality: <ul style="list-style-type: none"> <li>- installation of over-voltage protected components.</li> <li>- update the version of the software in accordance with the declaration of 30 August 2009 under Railways Act 1957, Section 40 (relates to staff qualifications) <ul style="list-style-type: none"> <li>- BUES2000 firm ...</li> <li>- Electronic signalling centre interface "interlock track x, direction y".</li> </ul> </li> </ul> </li> </ul> <p>Reasons: these measures have already been implemented by the infrastructure manager at the level crossing in question and will also be implemented at all the level crossing safety installations of the same type and functionality.</p>	<p>"Ensure that the following modifications are made to level crossing safety installations of the same type and functionality:</p> <ul style="list-style-type: none"> <li>- installation of over-voltage protected components.</li> <li>- update the version of the software</li> <li>- Electronic signalling centre interface "interlock track x, direction y"." </li></ul>
16.11.10			General availability in connection with safety recommendations	Letter obliging railway undertakings to act appropriately and immediately in the event of safety relevant outcomes.

## **E. Important changes in legislation and regulation**

The table in Annex D contains a list of the most important amendments to statutes and rules made in 2010.

## **F. The development of safety certification and authorisation**

### **1. National legislation – starting dates – availability**

#### **1.1. Starting date for issuing safety certificates in accordance with Article 10 of Directive 2004/49/EC (where necessary making a distinction between Part A and Part B)**

The 2006 amendment to the Railways Act, which entered into force on 27 June 2006, (Section 37 et seq. Railways Act), created the statutory basis for granting safety certification in accordance with Article 10 of Directive 2004/49/EC.

The national transitional provisions on the necessity of safety certification are to be found in Section 175(5) and (6) Railways Act:

***Section 175(5)** Safety certificates for an indefinite period or with a validity extending beyond the end of 31 December 2010, issued by infrastructure managers to railway undertakings with their registered office in Austria before the end of the day of publication of Federal Act BGBl. I No 125/2006, shall be valid as safety certificates part A and B until the end of 31 December 2010, provided they are not revoked earlier. Safety certificates with a validity not extending beyond the end of 31 December 2010, issued by infrastructure managers to railway undertakings with their registered office in Austria before the end of the day of publication of Federal Act BGBl. I No 125/2006, shall be valid as safety certificates part A and B until the end of their validity, provided they are not revoked earlier. If an application for the issue of a safety certificate, parts A and B, is made to the Federal Ministry of Transport, Innovation and Technology six months before the expiry of the safety certificate such safety certificates, provided they are not revoked earlier, shall have their validity as safety certificates part A and B extended until a decision is made on the application, but not beyond the end of 31 December 2010.*

*(6) Safety certificates issued by infrastructure managers to railway undertakings with their registered office in another Member State of the European Union, in another contracting party of the European Economic Area or in the Swiss Confederation before the end of the day of publication of Federal Act BGBl. I No 125/2006 shall be valid as safety certificates part B until the end of their validity, but not beyond the end of 31 December 2010, provided they are not revoked earlier. In addition, safety certificates issued to such railway undertakings in the states of their registered offices before the end of the day of publication of Federal Act BGBl.*

*I No 125/2006 shall be valid as proof of a safety certificate, part A and B, until the end their validity but not beyond the end of 31 December 2010 provided they are not revoked earlier.*

- 1.2. Availability of national safety rules and other national legislation to railway undertakings and infrastructure managers (website, paper documentation on request, etc).

Federal Ministry of Transport, Innovation and Technology (BMVIT)

Sektion IV,

Radetzkystraße 2,

A-1030 Wien

Tel.: +43-1-71162-65-0

Fax: +43-1-71162-652899

Websites:

[www.bmvit.gv.at/verkehr/eisenbahn/recht/index.html](http://www.bmvit.gv.at/verkehr/eisenbahn/recht/index.html)

[www.bmvit.gv.at/verkehr/eisenbahn/recht/eu/normen.html](http://www.bmvit.gv.at/verkehr/eisenbahn/recht/eu/normen.html)

[www.bmvit.gv.at/verkehr/eisenbahn/recht/downloads/notifizierung](http://www.bmvit.gv.at/verkehr/eisenbahn/recht/downloads/notifizierung)

The general federal legal information system provides details of national statutes and regulations:

Website: [www.ris.bka.gv.at](http://www.ris.bka.gv.at)

A guidebook, the “Guide to Applying for a Safety Certificate” (“Leitfaden zum Antrag auf Ausstellung einer Sicherheitsbescheinigung” [available only in German]), has been drawn up to assist in the preparation of supporting papers for applications for safety certification within the meaning of Article 12 of the Directive on safety on the Community’s railways. This may be found at: [www.bmvit.gv.at/verkehr/eisenbahn/sicherheit/bescheinigung/index.html](http://www.bmvit.gv.at/verkehr/eisenbahn/sicherheit/bescheinigung/index.html)

A guidebook, the “Guide to Applying for Safety Authorisation” (“Leitfaden zum Antrag auf Ausstellung einer Sicherheitsgenehmigung” [available only in German]), has been drawn up to assist in the preparation of supporting papers for applications for safety authorisation within the meaning of Article 11 of the Directive on safety on the Community’s railways:

Website:



[www.bmvit.gv.at/verkehr/eisenbahn/sicherheit/leitfaden\\_genehmigung.html](http://www.bmvit.gv.at/verkehr/eisenbahn/sicherheit/leitfaden_genehmigung.html)

## **2. Numerical data**

Annex E contains numerical data on the development of safety certification and authorisation.

## **3. Procedural aspects**

### **3.1. Safety certificates – Part A**

#### **3.1.1. Reasons for the updating/amendment of Part A Certificates (e.g. variation in the type of service, extent of traffic, size of the undertaking)**

One reason for updating safety certificates was the expiry of their validity.

#### **3.1.2. Main reasons for the mean issuing time for Part A Certificates (restricted to those mentioned in Annex E and after having received all the information necessary) exceeding the 4 months laid down in Article 12(1) of the Safety Directive**

Safety certification in accordance with the Safety Directive for all railway undertakings already operating had to be issued by 31 December 2010, accordingly the duration of all the processing in 2010 had to be based on that date.

#### **3.1.3. Overview of requests from other national safety authorities to verify or access information relating to the Part A Certificate of a railway undertaking which has been certified in your state, but which applies for a Part B Certificate in the other Member State.**

No enquiries were made by other national safety authorities on this subject in 2010.

#### **3.1.4. Summary of problems with the mutual recognition of the Part A Certificate which is valid in the whole European Community**

No problems with mutual recognition arose in 2010.



3.1.5. Charges made by the national safety authority for issuing a Part A Certificate (yes/no – charges)

Charges are raised in accordance with the Charges Act 1957 (Gebührengesetz) (BGBl. No 267/1957 as subsequently amended) for the submission of application documentation. These are based on the volume of the documents submitted with the application.

3.1.6. Summary of problems using the harmonised formats for Part A Certificates, specifically in relation to the categories for type and extent of service

No major problems arose in connection with the use of the harmonised document.

3.1.7. Summary of common problems and difficulties for national safety authorities in application procedures for Part A Certificates

No particular problems with the application procedures for Part A Certificates arose in 2010.

3.1.8. Summary of problems reported by railway undertakings when applying for a Part A Certificate

No significant problems were reported in 2010.

3.1.9. Feedback procedure (e.g. questionnaire) that allows railway undertakings to express their opinion on issuing procedures and practices or to make complaints

There was no formal feedback procedure in 2010.

## 3.2. Safety certificates – Part B

3.2.1. Reasons for the updating/amending of Part B Certificates (e.g. variation in the type of service, extent of traffic, lines to be operated, type of rolling stock, category of staff, etc.)

Besides the expiry of their validity, safety certificates also had to be updated because the size of the rail network applied for was being increased.

- 3.2.2. Main reasons for the mean issuing time for Part B Certificates (restricted to those mentioned in Annex E and after having received all the information necessary) exceeding the 4 months laid down in Article 12(1) of the Safety Directive

Safety certification in accordance with the Safety Directive for all railway undertakings already operating had to be issued by 31 December 2010, accordingly the duration of all the processing in 2010 had to be based on that date.

- 3.2.3. Charges made by the national safety authority for issuing a Part B Certificate (yes/no – charges)

Charges are raised in accordance with the Charges Act 1957 (BGBl. No 267/1957 as subsequently amended) for the submission of application documentation. These are based on the volume of the documents submitted with the application.

- 3.2.4. Summary of problems using the harmonised formats for Part B Certificates, specifically in relation to the categories for type and extent of service

No major problems arose in connection with the use of the harmonised document.

- 3.2.5. Summary of common problems and difficulties for national safety authorities in application procedures for Part B Certificates

No particular problems with the application procedures for Part B Certificates arose in 2010.

- 3.2.6. Summary of problems reported by railway undertakings when applying for a Part B Certificate

No major problems with applications for Part B certification were reported in the year in question.

- 3.2.7 Feedback procedure (e.g. questionnaire) that allows railway undertakings to express their opinion on issuing procedures and practices or to make complaints

There was no formal feedback procedure in 2010.

### 3.3. Safety authorisations

#### 3.3.1. Reasons for updating/amending safety authorisations

Not relevant in 2010 (see point F.2. and Annex E.2.)

#### 3.3.2. Main reasons for the mean issuing time for safety authorisations (restricted to those mentioned in Annex E and after having received all the information necessary) exceeding the 4 months laid down in Article 12(1) of the Safety Directive

Not relevant in 2010.

#### 3.3.3. Summary of problems and difficulties which arose regularly in application procedures for safety authorisations

Not relevant in 2010.

#### 3.3.4. Summary of problems reported by infrastructure managers when applying for a safety authorisation

Not relevant in 2010.

#### 3.3.5. Feedback procedure (e.g. questionnaire) that allows infrastructure managers to express their opinion on issuing procedures and practices or to make complaints

There was no formal feedback procedure in 2010.

#### 3.3.6. Charges made by the national safety authority for issuing safety authorisation (yes/no – charges)

Charges are raised in accordance with the Charges Act 1957 (BGBl. No 267/1957 as subsequently amended) for the submission of application documentation. These are based on the volume of the documents submitted with the application.

## **G. Supervision of railway undertakings and infrastructure managers**

### **1. Description of the supervision of railway undertakings and infrastructure managers**

The general tasks of railway authorities and means they use for supervision are laid down in summary in Section 13 Railways Act. The Railways Act, as amended, gives railway organisations a high degree of autonomy in the on-going supervision of construction and operation.

Amongst other methods, railway undertakings and infrastructure managers are supervised following exceptional events (see also point D.1.). e.g. by the authorities making random inspections of operating documentation on railway undertakings' sites, documenting the results and specifying measures to remedy deficiencies (on-site supervisory activity).

As part of the supervisory process, random on-site inspections using checklists were carried out on behalf of the national safety authority in connection with the issue of safety certificates in 2010.

### **2. Submission of all annual safety reports produced by infrastructure managers and railway undertakings in accordance with Article 9(4) of the Railway Safety Directive within the statutory time limits**

The reports listed below were submitted to the national safety authority (BMVIT) for the year 2010. BMVIT also called for further statistical data:

12 safety reports from infrastructure managers,

19 safety reports from railway undertakings,

Data from the Federal Office of Transport (Federal Accident Investigation Bureau),  
and additional data from railway undertakings.

### 3. Number of inspections (on-site) of RU/IM in 2010

Inspections (on-site)		Issued Safety certification (Part A)	Issued Safety certification (Part B)	Issued Safety authorisations	Other activities (to be specified)
Number of inspections (on- site) of RUs/IMs in 2010	Planned	*)	17		
	Unscheduled	*)			1
	Carried out	*)	17		

\*) The certificating bodies audit the supporting management system periodically.

### 4. Number of audits of RU/IM in 2010

The number of internal audits which were carried out by railway organisations as set out in the documentation of their safety management systems in 2010 was:

Infrastructure managers:	171
Railway undertakings:	210.

### 5. Summary of the relevant corrective measures/actions (e.g. amendment, revocation, suspension, serious warning) related to safety aspects following these audits/inspections

No relevant corrective measures in the year in question

### 6. Complaints from IMs about RUs relating to conditions in their Part A or Part B Certificates

No known complaints in 2010

### 7. Complaints from RUs about IMs relating to conditions in their safety authorisation

No known complaints in 2010

## **H. Reporting on the application of the CSM to risk evaluation and assessment**

Article 10(2) of Regulation (EC) No 352/2009 provides for the mandatory application of a staged plan starting on 19 July 2010.

As an aid to help and support users of the “Common Safety Method on Risk Evaluation and Assessment” and so that these common safety methods should be used in a uniform manner throughout the country, the Federal Ministry of Transport, Innovation and Technology (BMVIT) drew up a “Guide to Regulation (EC) No 352/2009” (Leitfaden zur Verordnung (EG) Nr. 352/2009 [available only in German]):

Website: [www.bmvit.gv.at/verkehr/eisenbahn/sicherheit/gmethoden/index.html](http://www.bmvit.gv.at/verkehr/eisenbahn/sicherheit/gmethoden/index.html)

### **1. Description of the most important changes which are not regarded by the proposers as significant**

In the year in question, in their safety reports railway organisations reported twelve changes which they did not regard as significant. The majority of these referred to operating changes.

The criteria of Article 4 para.2 of Commission Regulation (EC) No 352/2009 on risk evaluation and assessment were used. For example, risk was assessed on the basis of a risk matrix.

### **2. Description of the most important changes**

Three changes (technical and operational) which were regarded as significant were reported in safety reports.

Part of the risk assessment involved subcontractors. In those cases, the independent assessment bodies were partly based within the undertakings and in part external assessment bodies were involved.

**3. Short description of the audits undertaken by the proposers on the effectiveness of the risk management process**

Because of the short time that application of the risk management process has been obligatory, there are as yet no meaningful reports or experience.

**4. Reports from proposers and as appropriate from their subcontractor(s) and assessment body/bodies on the application of Commission Regulation (EC) No 352/2009 on risk assessment**

Because of the short time that application of the risk assessment process has been obligatory and the limited number of risk assessments, there are as yet no meaningful reports or experience.

**5. Experience of the proposers with the application of CSM for risk evaluation and assessment in cases in which the methods are applied on a voluntary basis before the regulation comes into effect (Regulation /3/, Article 4)**

Because of the short time the methods have been applied, no meaningful experience is as yet available.

**I. Annexes**

## ANNEX A: Railway structure information

### A.1. Network map

#### Bahnnetz Österreich

Ausgabe Winter 2010

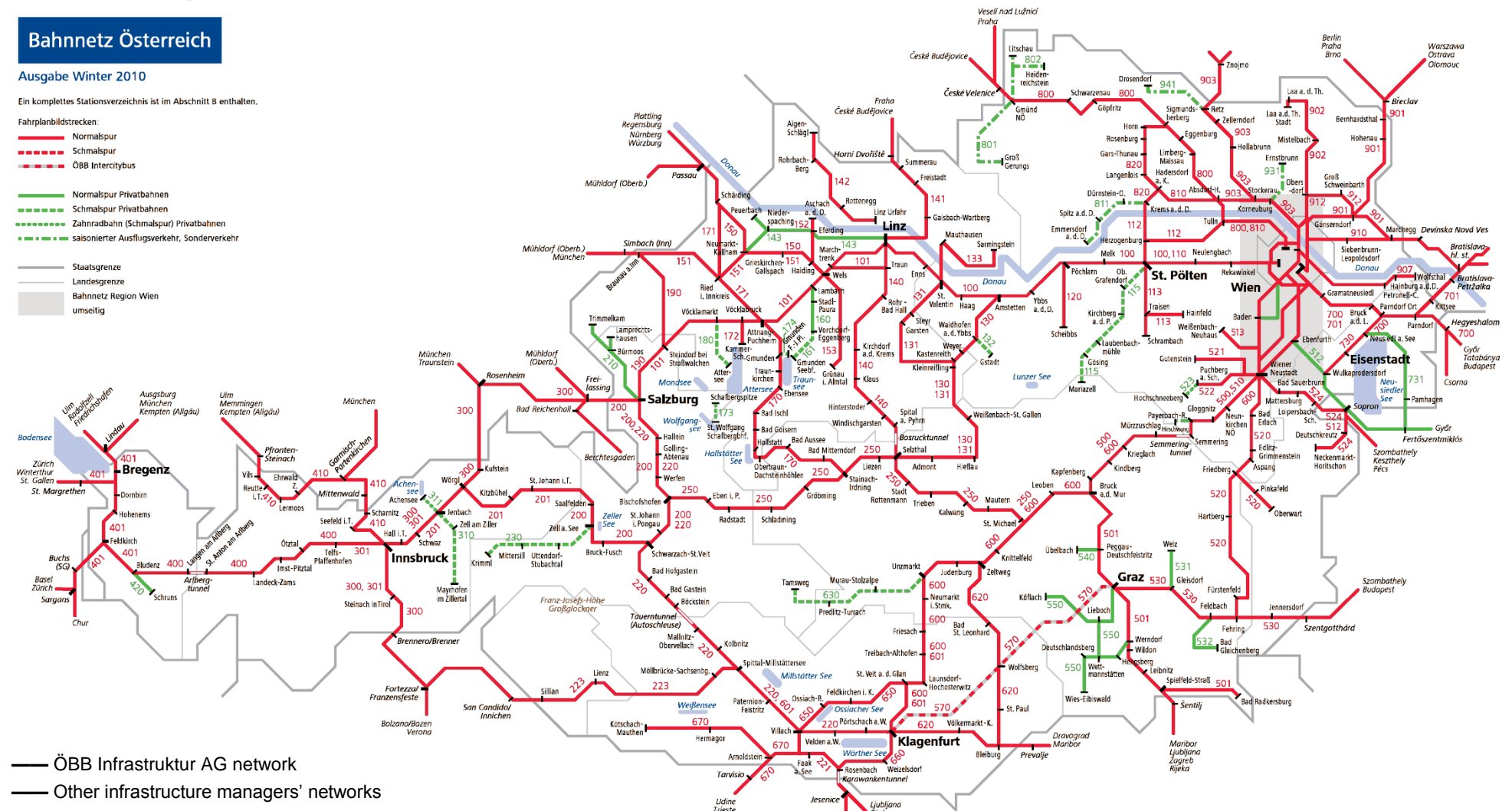
Ein komplettes Stationsverzeichnis ist im Abschnitt B enthalten.

Fahrplanbildstrecken:

- Normalspur
- - - Schmalspur
- · - · ÖBB Intercitybus

- Normalspur Privatbahnen
- - - Schmalspur Privatbahnen
- · - · Zahnradbahn (Schmalspur) Privatbahnen
- · - · saisonierter Ausflugsverkehr, Sonderverkehr

- Staatsgrenze
- Landesgrenze
- Bahnnetz Region Wien umseitig



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## A.2. List of railway undertakings and infrastructure managers

### A.2.1. Infrastructure managers (infrastructure managers on main lines and minor lines connected to them)

Name	Address	Website/Network Statement link
Aktiengesellschaft der Wiener Lokalbahnen	Eichenstraße 1 1120 Wien (Vienna)	<a href="http://www.wlb.at">www.wlb.at</a>
Cargo-Center-Graz Betriebsgesellschaft m.b.H. & Co KG	Terminal 1 8402 Werndorf	<a href="http://www.cargo-center-graz.at">www.cargo-center-graz.at</a>
Graz-Köflacher Bahn und Busbetrieb GmbH	Köflacher Gasse 35 – 41 8020 Graz	<a href="http://www.gkb.at">www.gkb.at</a>
Lokalbahn Lambach- Vorchdorf- Eggenberg AG (Operational management: Stern & Hafferl Verkehrsgesellschaft mbH)	Kuferzeile 32 4810 Gmunden	<a href="http://www.stern-verkehr.at">www.stern-verkehr.at</a>
Linzer Lokalbahn AG (Operational management: Stern & Hafferl Verkehrsgesellschaft mbH)	Rathaus 4041 Linz	<a href="http://www.stern-verkehr.at">www.stern-verkehr.at</a>
Montafonerbahn AG	Bahnhofstraße 15 a+b 6780 Schruns	<a href="http://www.montafonerbahn.at">www.montafonerbahn.at</a>
Neusiedler Seebahn AG (Operational management: Raab-Oedenburg-Ebenfurter Eisenbahn AG)	Bahnhofplatz 5 7041 Wulkaprodersdorf	<a href="http://www.nsb-ag.at">www.nsb-ag.at</a>
ÖBB Infrastruktur AG	Praterstern 3 1020 Wien	<a href="http://www.oebb.at/infrastruktur">www.oebb.at/infrastruktur</a>
Raab-Oedenburg-Ebenfurter Eisenbahn AG	Bahnhofplatz 5 7041 Wulkaprodersdorf	<a href="http://www.raaberbahn.at">www.raaberbahn.at</a>
Salzburg AG für Energie, Verkehr und Telekommunikation	Plainstraße 70 5020 Salzburg	<a href="http://www.salzburg-ag.at">www.salzburg-ag.at</a>
Land Steiermark / Steiermärkische Landesbahnen	Eggenberger Str. 20 8020 Graz	<a href="http://www.stlb.at">www.stlb.at</a>
Stern & Hafferl Verkehrsgesellschaft mbH (as the railway undertaking managing operations)	Kuferzeile 32 4810 Gmunden	<a href="http://www.stern-verkehr.at">www.stern-verkehr.at</a>
Süd Burgenländische Regionalbahn GmbH (traffic operations not yet started)	Bahnstraße 1 7508 Großpetersdorf	<a href="http://www.schuch-reisen.at">www.schuch-reisen.at</a>

### A.2.2. Railway undertakings with a traffic authorisation in accordance with Section 15 or Section 16 Railways Act

Name	Address	Website
Aktiengesellschaft der Wiener Lokalbahnen	Eichenstraße 1 1120 Wien	<a href="http://www.wlb.at">www.wlb.at</a>
Alpine Bau GmbH (traffic operations not yet started)	Alte Bundesstraße 10 5071 Wals	<a href="http://www.alpine.at">www.alpine.at</a>
City Air Terminal Betriebsg.m.b.H.	Office Park 1300 Wien Flughafen	<a href="http://www.cityairporttrain.com">www.cityairporttrain.com</a>
Graz-Köflacher Bahn und Busbetrieb GmbH	Köflacher Gasse 35 – 41 8020 Graz	<a href="http://www.gkb.at">www.gkb.at</a>

Name	Address	Website
Logistik Service GmbH	Lunzerstraße 41 4031 Linz	<a href="http://www.voestalpine.com/logserv">www.voestalpine.com/logserv</a>
LTE-Logistik- und Transport GmbH	Reininghausstraße 3 8020 Graz	<a href="http://www.lte.at">www.lte.at</a>
Majestic Emperor Train de Luxe Waggon Charter Ges.m.b.H. ((traffic operations not started in 2010))	Opernring 4/8 1010 Wien	<a href="http://www.imperialtrain.com">www.imperialtrain.com</a>
Montafonerbahn AG	Bahnhofstraße 15 a+b 6780 Schruns	<a href="http://www.montafonerbahn.at">www.montafonerbahn.at</a>
ÖBB Personenverkehr AG	Wagramer Straße 17-19 1220 Wien	<a href="http://www.oebb.at/pv">www.oebb.at/pv</a>
ÖBB Technische Services GmbH	Grillgasse 48 1110 Wien	<a href="http://www.oebb.at/ts">www.oebb.at/ts</a>
ÖBB Produktion GmbH	Langauer Gasse 1 1150 Wien	<a href="http://www.oebb-produktion.at">www.oebb-produktion.at</a>
ÖKOMBI GmbH (traffic operations not yet started)	Erdberger Lände 40-48 1030 Wien	<a href="http://www.oekombi.at">www.oekombi.at</a>
Raab-Oedenburg-Ebenfurter Eisenbahn AG	Bahnhofplatz 5 7041 Wulkaprodersdorf	<a href="http://www.raaberbahn.at">www.raaberbahn.at</a>
Raaberbahn Cargo GmbH	Bahnhofplatz 5 7041 Wulkaprodersdorf	<a href="http://www.raaberbahn.at">www.raaberbahn.at</a>
Rail Cargo Austria AG	Erdberger Lände 40-48 1030 Wien	<a href="http://www.railcargo.at">www.railcargo.at</a>
Rail Professionals Stütz GmbH ((traffic operations not started in 2010))	Pallenbergstraße 31d 1130 Wien	<a href="http://www.railprofi.at">www.railprofi.at</a>
Rhomberg Bahntechnik GmbH ((traffic operations not started in 2010))	Mariahilferstraße 29 6900 Bregenz	<a href="http://www.bahntechnik.com">www.bahntechnik.com</a>
RTS Rail Transport Services GmbH	Puchstraße 184 b 8055 Graz	<a href="http://www.rts-austria.at">www.rts-austria.at</a>
Safety4you Baustellenlogistik GmbH (traffic operations not yet started)	Bahnhofplatz 1 4600 Wels	
Salzburg AG für Energie, Verkehr und Telekommunikation	Plainstraße 70 5020 Salzburg	<a href="http://www.salzburg-ag.at">www.salzburg-ag.at</a>
Steiermarkbahn Transport und Logistik GmbH	Eggenberger Straße 20 8020 Graz	<a href="http://www.steiermarkbahn.at">www.steiermarkbahn.at</a>
Land Steiermark / Steiermärkische Landesbahnen	Eggenberger Straße 20 8020 Graz	<a href="http://www.stlb.at">www.stlb.at</a>
Stern & Hafferl Verkehrsgesellschaft mbH	Kuferzeile 32 4810 Gmunden	<a href="http://www.stern-verkehr.at">www.stern-verkehr.at</a>
TX Logistik Austria GmbH	Am Concorde-Park E/13 2320 Schwechat	<a href="http://www.txlogistic.de">www.txlogistic.de</a>
WESTbahn Management GmbH (traffic operations not yet started)	Mariahilfer Straße 103/25 1060 Wien	<a href="http://www.westbahn.at">www.westbahn.at</a>
Wiener Lokalbahnen Cargo GmbH	Anton-Baumgartner-Straße 10 1230 Wien	<a href="http://www.wlb-cargo.at">www.wlb-cargo.at</a>

### A.2.3. Railway undertakings with safety certificates Part B

Name	Anschrift	Website
Aktiengesellschaft der Wiener Lokalbahnen	Eichenstraße 1 1120 Wien	<a href="http://www.wlb.at">www.wlb.at</a>
DB Regio Aktiengesellschaft	Stephensonstraße 1 D-60326 Frankfurt am Main	<a href="http://www.deutschebahn.com">www.deutschebahn.com</a>
City Air Terminal Betriebsg.m.b.H.	Office Park 1300 Wien Flughafen	<a href="http://www.cityairporttrain.com">www.cityairporttrain.com</a>
Graz-Köflacher Bahn und Busbetrieb GmbH	Köflacher Gasse 35 – 41 8020 Graz	<a href="http://www.gkb.at">www.gkb.at</a>
Logistik Service GmbH	Lunzerstraße 41 4031 Linz	<a href="http://www.voestalpine.com/logserv">www.voestalpine.com/logserv</a>
Lokomotion- Gesellschaft für Schienentraktion mbH	Kastenbauerstraße 2 D-81677 München	
LTE-Logistik- und Transport GmbH	Reininghausstraße 3 8020 Graz	<a href="http://www.lte.at">www.lte.at</a>
Montafonerbahn AG	Bahnhofstraße 15 a+b 6780 Schruns	<a href="http://www.montafonerbahn.at">www.montafonerbahn.at</a>
ÖBB Personenverkehr AG	Wagramer Straße 17-19 1220 Wien	<a href="http://www.oebb.at/pv">www.oebb.at/pv</a>
ÖBB Technische Services GmbH	Grillgasse 48 1110 Wien	<a href="http://www.oebb.at/ts">www.oebb.at/ts</a>
ÖBB Produktion GmbH	Langauer Gasse 1 1150 Wien	<a href="http://www.oebb-produktion.at">www.oebb-produktion.at</a>
Raab-Oedenburg-Ebenfurter Eisenbahn AG	Bahnhofplatz 5 7041 Wulkaprodersdorf	<a href="http://www.raaberbahn.at">www.raaberbahn.at</a>
Raaberbahn Cargo GmbH	Bahnhofplatz 5 7041 Wulkaprodersdorf	<a href="http://www.raaberbahn.at">www.raaberbahn.at</a>
Rail Cargo Austria AG	Erdberger Lände 40-48 1030 Wien	<a href="http://www.railcargo.at">www.railcargo.at</a>
Rail Professionals Stütz GmbH (traffic operations not started in 2010)	Pallenbergstraße 31d 1130 Wien	<a href="http://www.railprofi.at">www.railprofi.at</a>
Rhomberg Bahntechnik GmbH (traffic operations not started in 2010)	Mariahilferstraße 29 6900 Bregenz	<a href="http://www.bahntechnik.com">www.bahntechnik.com</a>
RTS Rail Transport Services GmbH	Puchstraße 184 b 8055 Graz	<a href="http://www.rts-austria.at">www.rts-austria.at</a>
Salzburg AG für Energie, Verkehr und Telekommunikation	Plainstraße 70 5020 Salzburg	<a href="http://www.salzburg-ag.at">www.salzburg-ag.at</a>
Steiermarkbahn Transport und Logistik GmbH	Eggenberger Straße 20 8020 Graz	<a href="http://www.steiermarkbahn.at">www.steiermarkbahn.at</a>
Land Steiermark / Steiermärkische Landesbahnen	Eggenberger Straße 20 8020 Graz	<a href="http://www.stlb.at">www.stlb.at</a>
Stern & Hafferl Verkehrsgesellschaft mbH	Kuferzeile 32 4810 Gmunden	<a href="http://www.stern-verkehr.at">www.stern-verkehr.at</a>
TX Logistik Austria GmbH	Am Concorde-Park E/13 2320 Schwechat	<a href="http://www.txlogistic.de">www.txlogistic.de</a>
Wiener Lokalbahnen Cargo GmbH	Anton-Baumgartner-Straße 10 1230 Wien	<a href="http://www.wlb-cargo.at">www.wlb-cargo.at</a>

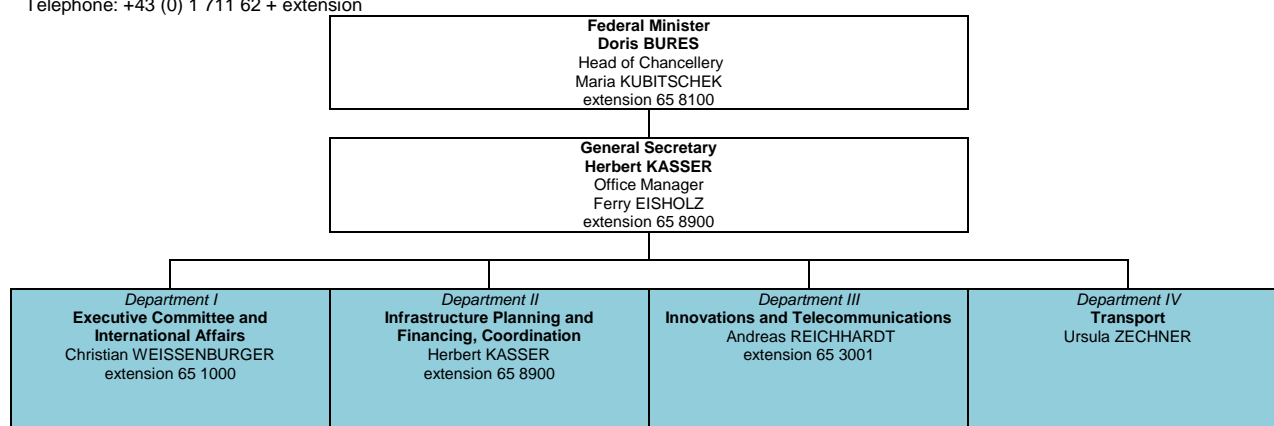
## ANNEX B: Organisation chart

### **B.1. Organisation chart of the Federal Ministry of Transport, Innovation and Technology as the national safety authority:**

#### **Federal Ministry for Transport, Innovation and Technology**



Telephone: +43 (0) 1 711 62 + extension



(As at September 2011, source (of German version): BMVIT website)

## Department IV Transport

Telephone: +43 (0) 1 711 62 + extension

Department IV  
Transport  
Ursula ZECHNER



Group Rail (vacant)	Group Road Wilhelm KAST Extension 65 5317		Group Air Peter FRANZMAYR (prov.) Extension 65 1400	Group Transport Labour Inspectorate Reinhard KUNTNER Extension 65 4500
<i>Sch 1</i> <b>Parliamentary drafting &amp; international affairs, railways and pipelines</b> Wolfgang CATHARIN extension 65 2100	<i>ST 1</i> <b>Planning and environment</b> Friedrich ZOTTER extension 65 5569	<i>W 1</i> <b>Law</b> Victor SIEGL extension 65 5734	<i>L 1</i> <b>Air law and safety</b> Karl PRACHNER extension 65 9700	<i>V1</i> <b>Railways</b> Reinhard KUNTNER extension 65 4500
<i>Sch 2</i> <b>Supreme railway construction authority</b> Jörg SCHRÖTTNER extension 65 2216	<i>ST 2</i> <b>Technology and transport safety</b> Eva-Maria EICHINGER-VILL extension 65 5724	<i>W 2</i> <b>Shipping, technology and navigation</b> Reinhard VORDERWINKLER extension 65 5900	<i>L 2</i> <b>International air agreements</b> Silvia GEHRER extension 65 9600	<i>V2</i> <b>Post, air, shipping, cableways</b> Leopold FLASCH extension 65 4400
<i>Sch 3</i> <b>Supreme cableway authority</b> Gerald WUMITZER extension 65 2300	<i>ST 3</i> <b>Legal area federal highways</b> Christine ROSE extension 65 5785	<i>W 3</i> <b>Federal inland waterways</b> Leo GRILL extension 65 5960	<i>L 3</i> <b>Flight operations, technology, air traffic economics, security</b> (vacant)	
<i>Sch 4</i> <b>Technical principles &amp; technology, technical railway research</b> Elfriede MEDLITSCH extension 65 2500	<i>ST 4</i> <b>Legal area powered vehicles and vehicle technology</b> Wilhelm KAST extension 65 5317		<i>L 4</i> <b>Airports, flight safety installations, land activities, barriers</b> (vacant)	
<i>Sch 5</i> <b>Railway safety authority</b> Regina ROITHNER extension 65 2204	<i>ST 5</i> <b>Legal area road traffic</b> Christian KAINZMEIER extension 65 1800			
	<i>ST 6</i> <b>Dangerous goods</b> Othmar KRAMMER extension 65 5880			
	<i>ST 7</i> <b>Passenger and freight traffic</b> Bettina HUBER extension 65 5734			

(As at September 2011, source (of German version): BMVIT website)

Extract from the organisation:

## **DEPARTMENT IV - TRANSPORT**

Authorities, technology and legal areas for rail, road, cableway and pipelines together with issues from the waterway, air, transport safety and transport work inspectorate areas.

### **Section Sch 1 - Parliamentary drafting & international affairs, railways and pipelines**

Domestic parliamentary drafting including general secondary parliamentary drafting and coordination of statutory regulations for railways and pipelines;  
legal matters regarding rail reform and the regulation of the market for rail services, including training and testing services;  
matters concerning state commissioners;  
involvement in drawing up and transposing Community law and international legislation in intergovernmental treaties concerning rail and pipelines including representation of these matters in EU bodies and other international and national groups;  
enforcement of the Pipelines Act.

### **Section Sch 2 - Supreme railway construction authority (procedures in the railway field)**

Statutory and administrative matters (including those railway operational and technical matters with similar procedures) including technical safety aspects of railway equipment and rolling stock, in particular all the work on the relevant administrative procedures (in so far as they are not allocated to Section Sch 5) such as procedures for construction approval, type approval and operations approval;  
train path approval procedures, procedures under the Environmental Impact Assessment Act (UVP-G 2000); lineside property procedures and compulsory purchase procedures under railway law;  
procedures for the remodelling or protection of level crossings;  
appeal procedures in the railway field, including technical safety aspects of railway equipment and rolling stock and trolley bus routes;  
management of the lists defined by Section 40 Railways Act; matters concerning other construction authorities' means of supervision;  
drafting of secondary legislation with similar procedures (relevant regulations, including decrees and implementation circular letters on procedural matters).

### **Section Sch 4 - Railway technical principles and railway technology, technical railway research**

General technical matters concerning construction, safety, telecommunications and machinery for railways, including the technical aspects of equipment to ensure railway safety and rolling stock of all types;  
domestic and international technical standards and specifications and other sets of

regulations on the state of the art;  
safeguarding railway technical principles in domestic bodies, in EU bodies (particularly in the Article 21 Committee), ERA, CEN and in other international bodies;  
matters concerning the listing of standards, technical specifications and other sets of regulations in accordance with Section 19(4) and (5) Railways Act;  
involvement in accreditation,  
evaluation and publication of the results of relevant research in the railway field, including insights gained in railway procedures, and involvement in research projects and external publications;  
involvement in the work of Sections Sch 1, 2, and 5 in all railway technical matters within the remit of Section Sch 4.

## **Section Sch 5 - Railway safety authority**

Safeguarding legal, administrative and operational matters for railway safety such as concessions, traffic authorisations and traffic concessions, safety authorisations and safety certification, matters concerning safety authority reporting and representation of these matters in all international bodies and organisations;  
setting up and closing down of railways;  
cooperation with the Federal Accident Investigation Bureau;  
regulations and approval of general instructions to railway staff,  
authorisation of the appointment of signalling staff;  
matters concerning other safety authority related supervisory activity.

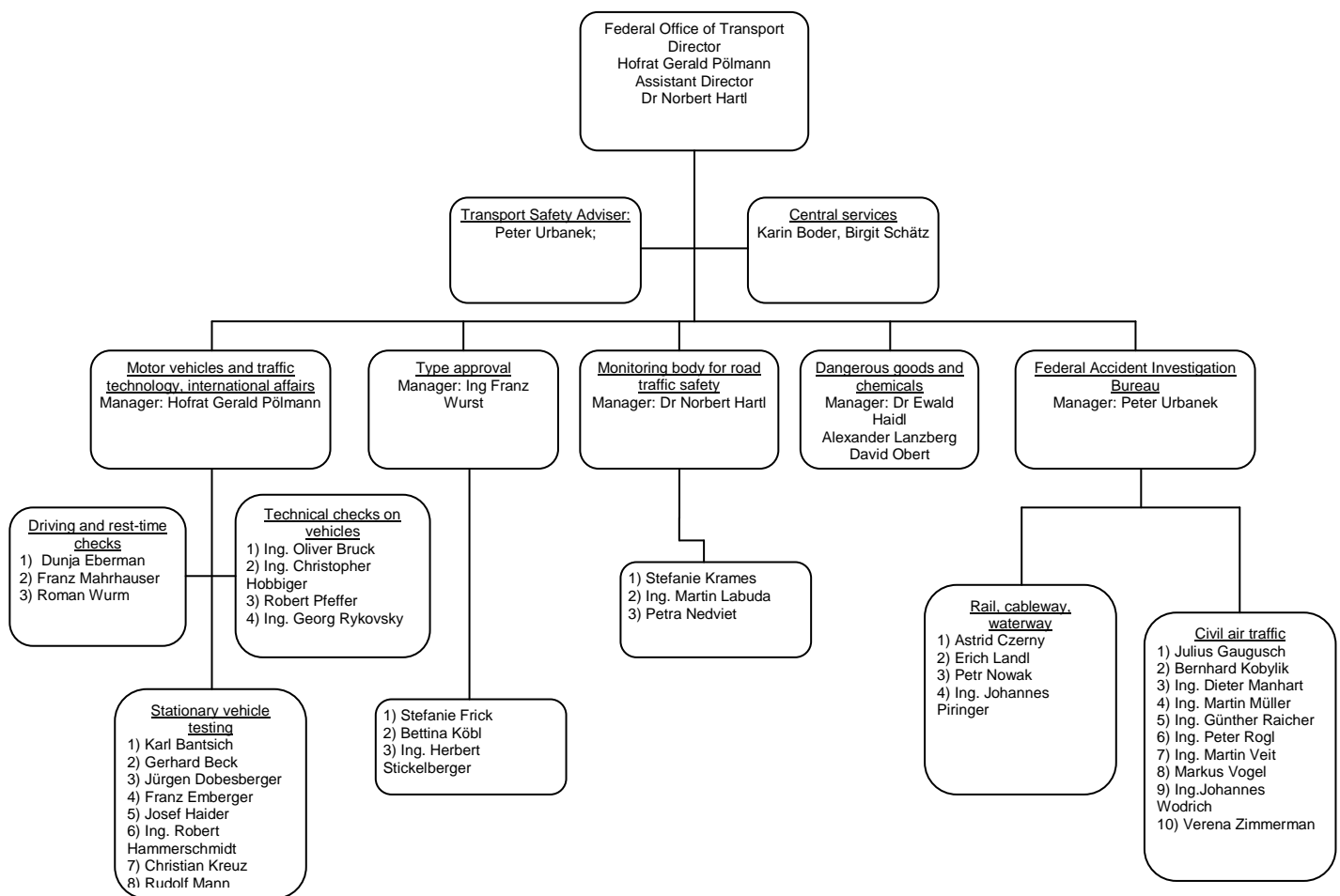
## **Transport Labour Inspectorate Group**

### **Section V1 - Railways**

Safeguarding the statutory protection of employees of railway organisations within the meaning of the Railways Act 1957 (main line and minor railways, tramways, underground railways, trolley bus operations, connecting railways, industrial railways), of sleeping cars, couchette coaches, buffet and restaurant cars, including maintenance (vehicle workshops), of railway organisations' social and welfare institutions, of railway organisations' road operations and of transshipment installations for railway purposes and for accompanied freight traffic;  
further development of worker protection within the scope of the section;  
drafting and international matters concerning worker protection and working time and rest-time regulations for workers in transport organisations, within the scope of the section, provided questions of transport law are not involved;  
involvement in administrative penalty procedures as a result of infringements of worker protection regulations;  
involvement in administrative procedures to safeguard worker protection, in particular in procedures connected to railway law;  
railway accident matters and evaluation of accidents from the viewpoint of worker protection;  
representation of the department in the accident prevention committee of the Austrian Railways Insurance Institution (Versicherungsanstalt der Österreichischen Eisenbahnen);  
involvement in international, European and national standard setting;  
involvement in the work of the Austrian Standards Institute and the Austrian Electrotechnical Association (Österreichischer Verband für Elektrotechnik).



## B.2. Organisation chart of the Federal Office of Transport as the Federal Accident Investigation Bureau:



As at April 2011, source: Federal Office of Transport website)

## ANNEX C: CSI data – definitions used

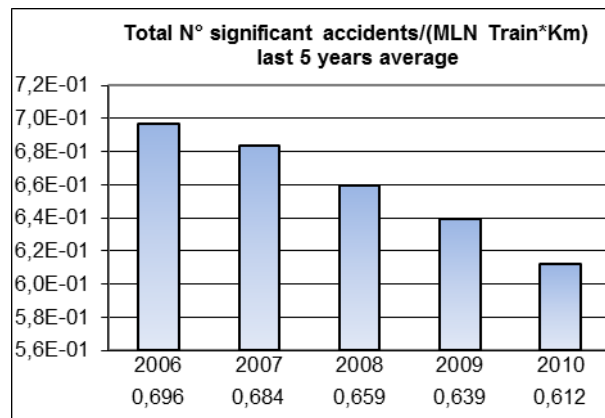
The CSI data evaluated relates to the operation of main lines and minor lines connected to them, the operation of rolling stock on such railways and traffic on such railways on Austrian sovereign territory in 2010.

### **C.1. CSI data**

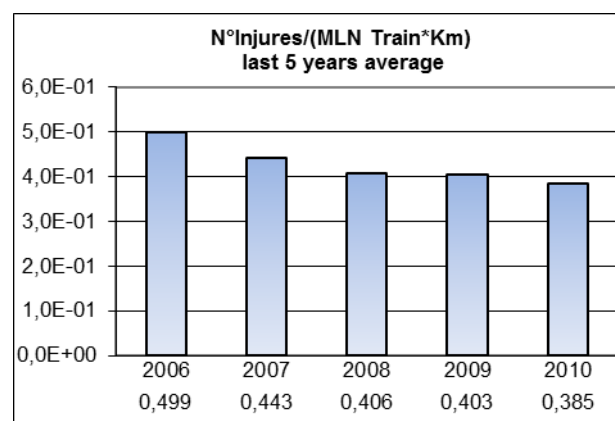
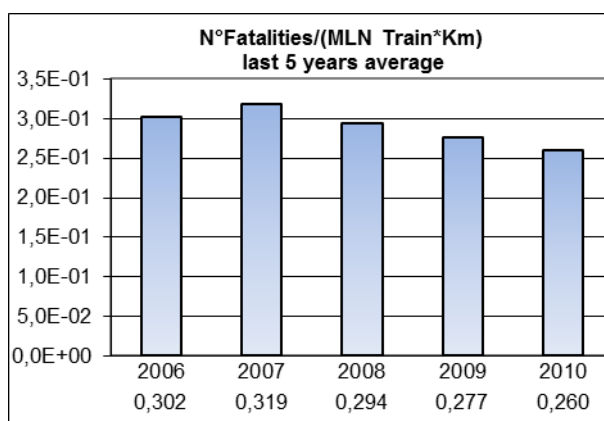
#### **C.1.1. Accident-related indicators (including the years 2006 – 2009<sup>2)</sup>)**

Graphical representation of accident-related indicators:

*Total number of significant accidents:*

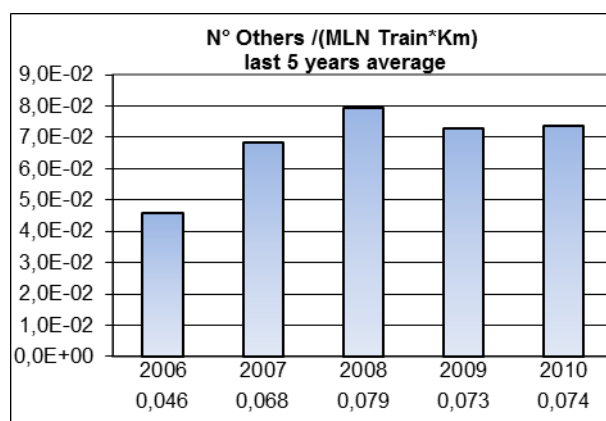
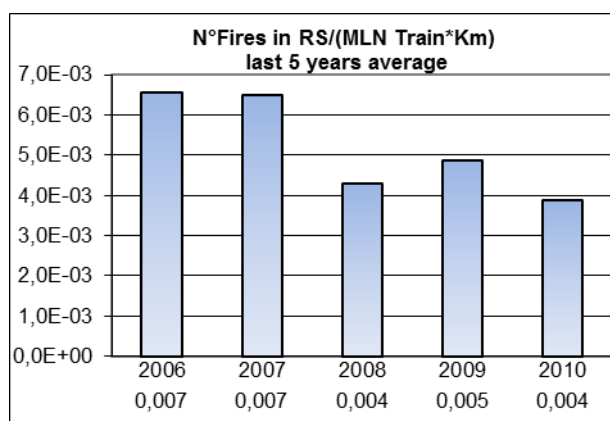
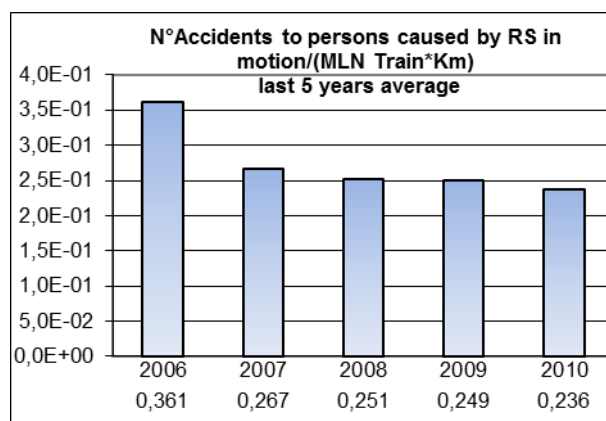
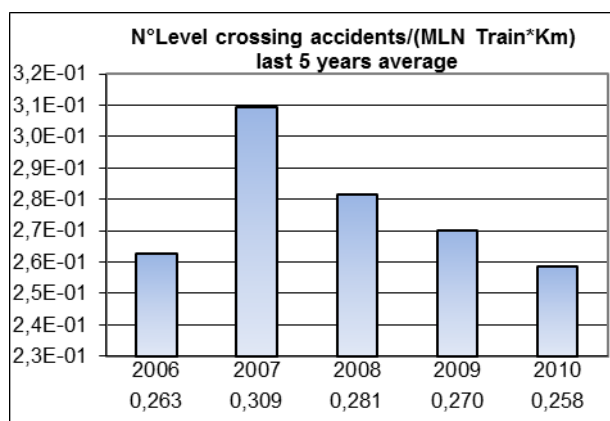
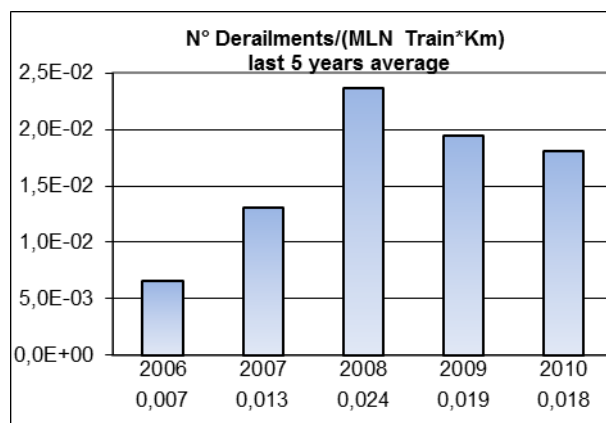
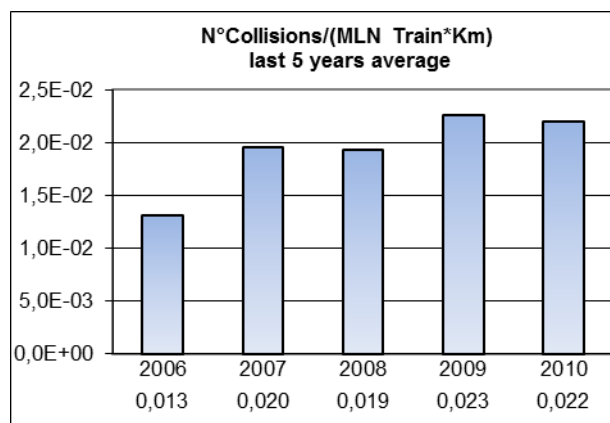


*Total number of fatalities and serious injuries:*

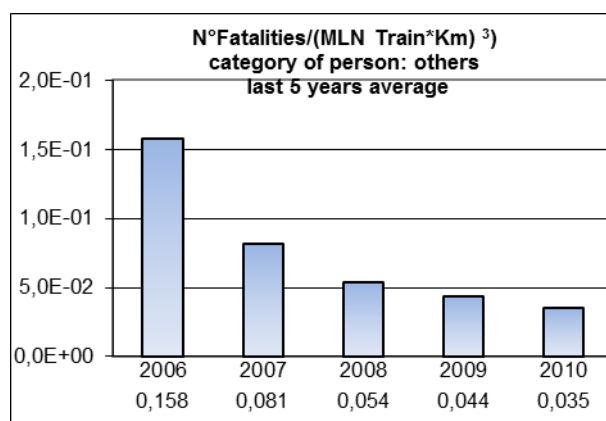
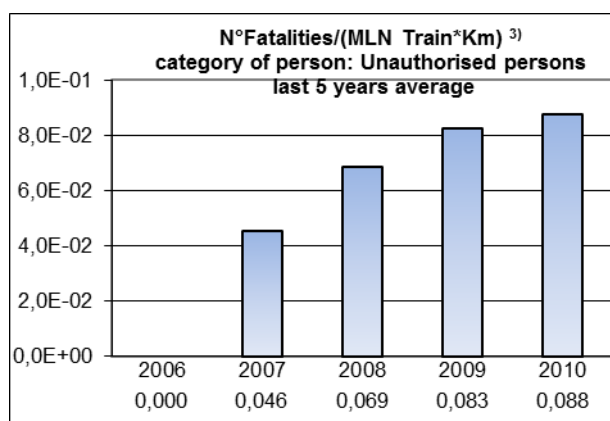
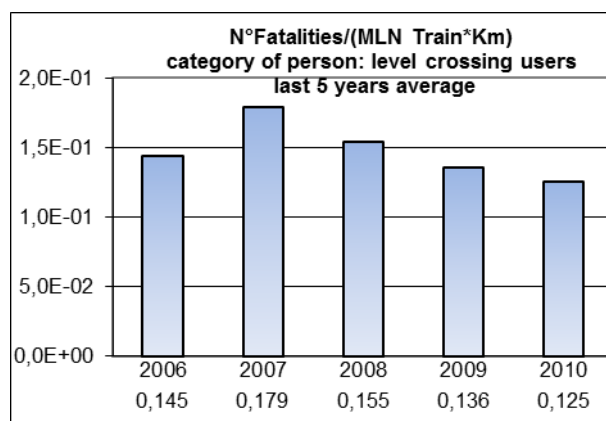
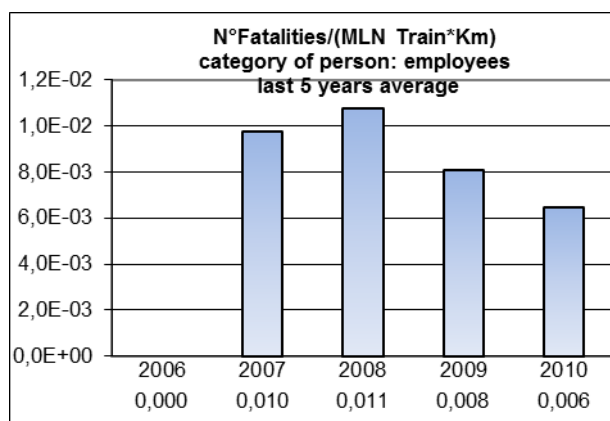
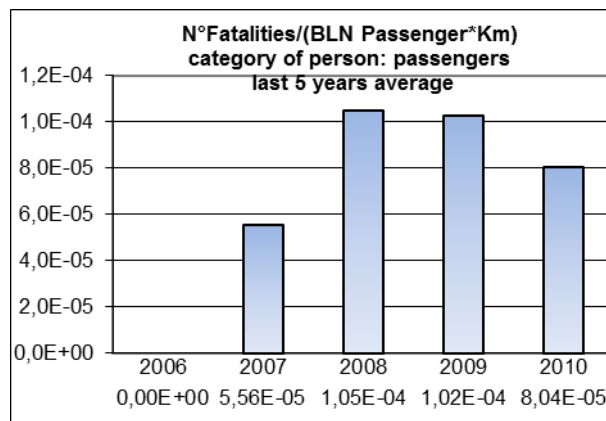
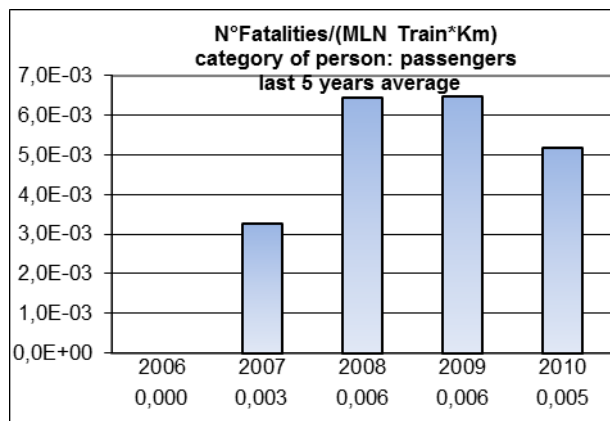


<sup>2)</sup> The accident-related indicators shown as a function of train kilometres or passenger kilometres show the appropriate mean value beginning in 2006 (also see note at end of section).

*Significant accidents by type of accident:*

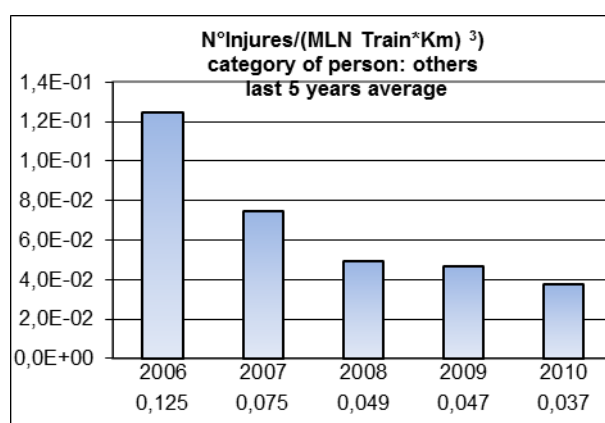
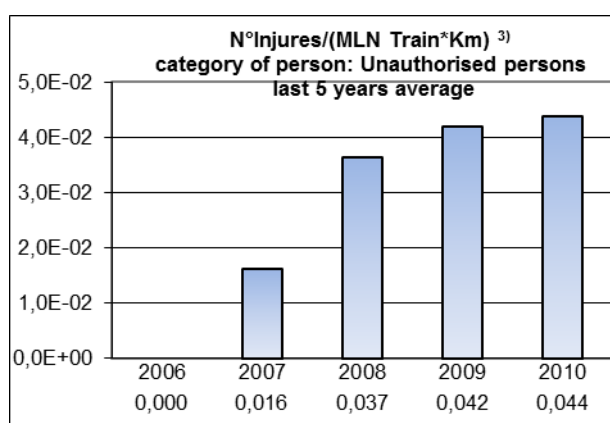
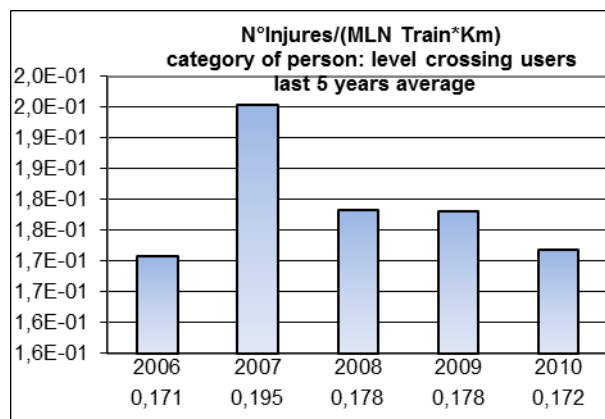
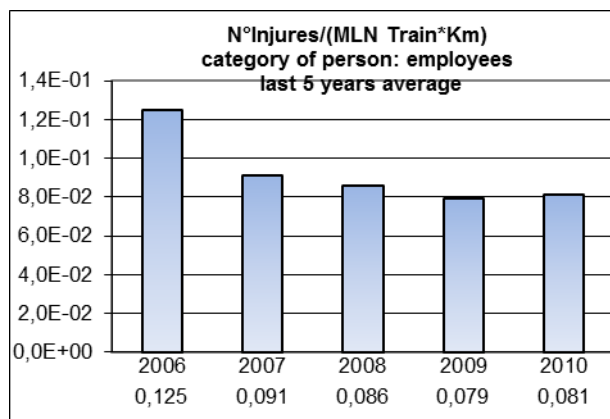
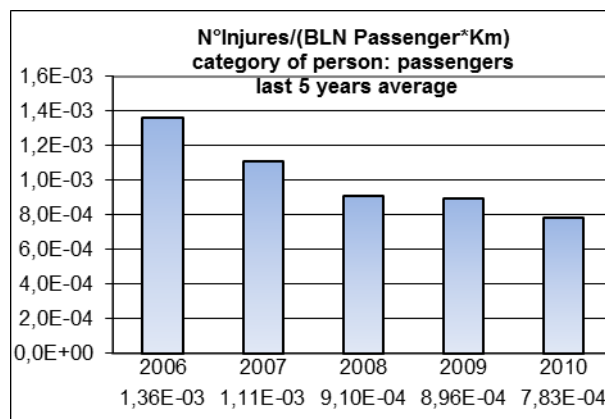
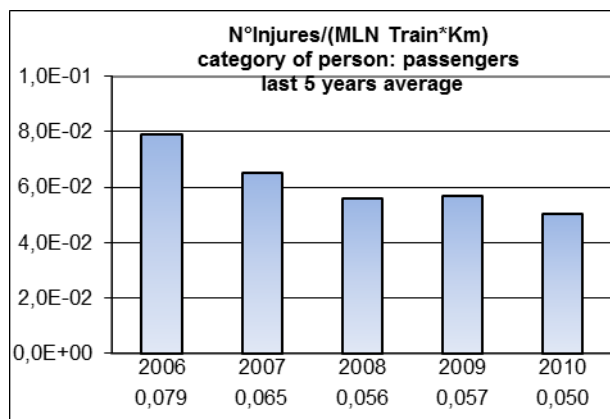


*Fatalities by category of person involved:*



<sup>3)</sup> In 2006, the "other persons" category also included unauthorised persons.

*Serious injuries by category of person involved:*



<sup>3)</sup> In 2006, the "other persons" category also included unauthorised persons.

Tabular presentation of accident-related indicators:

**Number of significant accidents and Train\*Km**

Year	Type of accident						Total	Train*Km (MLN)
	Collision s	Derailme nts	Level crossing accident s	Accident s to persons caused by RS in motion	Fires in RS	Others		
2006	2	1	40	55	1	7	106	152
2007	4	3	55	27	1	14	104	155
2008	3	7	36	35	0	16	97	158
2009	5	1	36	37	1	8	88	152
2010	3	2	33	29	0	12	79	156

**N° of fatalities, Train\*Km and Passenger\*Km <sup>3)</sup>**

Year	Category of persons						Passeng er*Km (MLN)	Train*Km (MLN)
	Passeng ers	Employe es	Level crossing users	Unauthor ised persons	Others	Total		
2006	0	0	22	0	24	46	8830	152
2007	1	3	33	14	1	52	9149	155
2008	2	2	17	18	0	39	10600	158
2009	1	0	12	19	2	34	10500	152
2010	0	0	13	17	0	30	10700	156

**N° of injuries, Train\*Km and Passenger\*Km <sup>3)</sup>**

Year	Category of persons						Passeng er*Km (MLN)	Train*Km (MLN)
	Passeng ers	Employe es	Level crossing users	Unauthor ised persons	Others	Total		
2006	12	19	26	0	19	76	8830	152
2007	8	9	34	5	4	60	9149	155
2008	6	12	23	12	0	53	10600	158
2009	9	9	27	9	6	60	10500	152
2010	4	14	23	8	0	49	10700	156

<sup>3)</sup> In 2006, the “other persons” category also included unauthorised persons.

### Number of accidents/Train\*Km

Year	Type of accident						Total
	Collisions	Derailments	Level crossing accidents	Accidents to persons caused by RS in motion	Fires in RS	Others	
2006	0,013	0,007	0,263	0,361	0,007	0,046	0,696
2007	0,020	0,013	0,309	0,267	0,007	0,068	0,684
2008	0,019	0,024	0,281	0,251	0,004	0,079	0,659
2009	0,023	0,019	0,270	0,249	0,005	0,073	0,639
2010	0,022	0,018	0,258	0,236	0,004	0,074	0,612

### N° of fatalities/Train\*Km and Passenger\*Km <sup>3)</sup>

Year	Category of persons						Total
	Passengers	Passengers	Employees	Level crossing users	Unauthorised persons	Others	
2006	0,000	0,00E+00	0,000	0,145	0,000	0,158	0,302
2007	0,003	5,56E-05	0,010	0,179	0,046	0,081	0,319
2008	0,006	1,05E-04	0,011	0,155	0,069	0,054	0,294
2009	0,006	1,02E-04	0,008	0,136	0,083	0,044	0,277
2010	0,005	8,04E-05	0,006	0,125	0,088	0,035	0,260
	related to Train*Km	related to Passenger*Km	related to Train*Km	related to Train*Km	related to Train*Km	related to Train*Km	related to Train*Km

### N° of injuries/Train\*Km and Passenger\*Km <sup>3)</sup>

Year	Category of persons						Total
	Passengers	Passengers	Employees	Level crossing users	Unauthorised persons	Others	
2006	0,079	1,36E-03	0,125	0,171	0,000	0,125	0,499
2007	0,065	1,11E-03	0,091	0,195	0,016	0,075	0,443
2008	0,056	9,10E-04	0,086	0,178	0,037	0,049	0,406
2009	0,057	8,96E-04	0,079	0,178	0,042	0,047	0,403
2010	0,050	7,83E-04	0,081	0,172	0,044	0,037	0,385
	related to Train*Km	related to Passenger*Km	related to Train*Km	related to Train*Km	related to Train*Km	related to Train*Km	related to Train*Km

<sup>3)</sup> In 2006, the "other persons" category also included unauthorised persons.

Note on the accident-related indicators as a function of train kilometres or passenger kilometres:

Values for 2007 show the means for 2006 and 2007;

Values for 2008 show the mean of years from 2006 to 2008;

Values for 2009 show the mean of years from 2006 to 2009;

Values for 2010 show the mean of years from 2006 to 2010.

### C.1.2. Indicators relating to dangerous goods

	Total number	Mean number (per million train km)
Accidents in which at least one rail vehicle carrying dangerous goods was involved (as defined in Directive 2009/149/EC)	0	0
Number of such accidents in which dangerous goods were released	0	0

### C1.3. Indicators relating to suicides

	Total number	Mean number (per million train km)
Suicides	90	0,577

### C.1.4. Indicators relating to precursors of accidents

	Total number	Mean number (per million train km)
Broken rails	211	1,35
Buckled rails	172	1,10
Wrong-side signalling failures	4	0,03
Signals passed at danger	11	0,07
Broken wheels on vehicles in service	0	0,00
Broken axles on vehicles in service	0	0,00

### C.1.5. Indicators to calculate the economic impact of significant accidents

	Total amount	Mean amount (per million train km)
Total cost of all significant accidents:	106.614.733 €	682.990 €
Number of deaths and serious injuries multiplied by the value of preventing a casualty (VPC)	80.777.945 €	517.476 €
Cost of damage to the environment (€)	620.000 €	3.972 €
Cost of material damage to rolling stock or infrastructure	21.598.465 €	138.363 €
Costs of delays as a consequence of accidents	3.618.322 €	23.180 €



### C.1.6. Indicators relating to technical safety of infrastructure and its implementation

Percentage of tracks with automatic train protection (ATP) in operation	73 %
Percentage of train kilometres operated using ATP systems	86 %

	Total number	Mean (per route kilometre)	Mean (per track kilometre)
Total number of level crossings	5142	0,885	0,639
Total number of actively protected level crossings	1935	0,333	0,240
Automatic user-side warning	797	0,137	0,099
Automatic user-side protection	0	0,000	0,000
Automatic user-side protection and warning	878	0,151	0,109
Automatic user-side protection and warning and rail-side protection	29	0,005	0,004
Manual user-side warning	223	0,038	0,028
Manual user-side protection	8	0,001	0,001
Manual user-side protection and warning	0	0,000	0,000
Total number of passively protected level crossings	3207	0,552	0,398

### C.1.7. Indicators relating to management of safety

Number of audits carried out	381
Percentage of planned audits carried out	89 %

Common Safety Indicators (CSI) from 2006 are also to be found on the European Railway Agency database of interoperability and safety (ERADIS) at:

[http://pdb.era.europa.eu/safety\\_docs/csi/default.aspx](http://pdb.era.europa.eu/safety_docs/csi/default.aspx),

where the Common Safety Indicators of Member States of the European Union are published.

## **C.2. Definitions used in the annual report**

### **C.2.1. Definitions to be used**

With effect from 2010, the common definitions for the Common Safety Indicators laid down in Directive 2009/149/EC of 27 November 2009 amending Directive 204/49/EC are to be used.

Further details on the various Common Safety Indicators are to be found in the “Implementation Guidance for CSIs” guide produced by the European Railway Agency (ERA) and available at:

[www.era.europa.eu/Document-Register/Documents/guidance-for-use-of-CSIs-ver-2010-03.pdf](http://www.era.europa.eu/Document-Register/Documents/guidance-for-use-of-CSIs-ver-2010-03.pdf)

### **C.2.2. National definitions**

Further national definitions which have a particular relevance to the Safety Directive are shown below:

#### **Main line railways, minor railways**

in accordance with Section 4 Railways Act 1957, BGBl. No 60/1957, as amended:

***Section 4.** (1) Main line railways are specific railway lines of greater traffic importance open for public traffic. They include railway lines*

*1. which have been declared to be high capacity lines in accordance with Section 1 of the High Capacity Line Act (Hochleistungsstreckengesetz), BGBl. No 135/1989 as amended;*

*2. which the Federal Minister of Transport, Innovation and Technology has declared by means of a regulation to be main lines because a particular importance is attributed to them for high performance traffic or because they should be upgraded for such traffic – in particular for international services or for regional traffic.*

*(2) Minor lines are specific railway lines open for public traffic provided they are not main lines or tramways.*

### Connected main and minor lines

in accordance with Section 1a Railways Act 1957, BGBl. No 60/1957, as amended:

*Main and minor lines are connected if an exchange of vehicles can just take place over a local connection without a change of gauge and without technical aids (transporter wagon, for example). Main and minor lines are also considered as connected if they are connected across a frontier with another railway of the same type in a neighbouring state.*

### High capacity lines

in accordance with the High Capacity Line Act, BGBl. No 135/1989, as amended by BGBl. I  
No 81/1999:

**Section 1.** (1) *The Federal Government may declare existing or planned railways (sections of lines or parts of sections of lines including the installations necessary) to be high capacity lines by regulation (High Capacity Line Regulation (Hochleistungsstreckenverordnung)). The line must be considered to have a special importance for high performance with international connections or for local traffic.*

(2) *Existing or planned railways may also be declared to be parts of high capacity lines if they do not possess the characteristics laid down in paragraph 1 but they have a direct relationship with high capacity lines and are required for rational railway operation or rail traffic on high capacity lines.*

### Infrastructure manager

in accordance with Section 1a Railways Act 1957, BGBl. No 60/1957, as amended:

**Section 1a.** *An infrastructure manager is a railway organisation which covers the construction and operation of main line and minor railways, excluding those minor railways which are not connected to main lines or other minor lines, and is authorised to make them available.*

### Railway undertaking

in accordance with Section 1b Railways Act 1957, BGBl. No 60/1957, as amended:

**Section 1b.** *A railway undertaking is a railway organisation which provides rail traffic services on main line or connected minor line rail infrastructure and provides the traction; this also includes those which only provide traction, and to which a traffic authorisation, a traffic concession or an authorisation or approval which is equivalent to a traffic approval in accordance with Section 41 has been granted.*

### C.3. Abbreviations

ABUM	System for controlling shunting movements (Abstoß- und umsetzautomatik)	km	Kilometre
ASchG	Employee Protection Act (ArbeitnehmerInnenschutzgesetz)	km/h	Kilometres per hour
GCU	General Contract of Use for Wagons	MeldeVO	Rail Accident Reporting Regulation 2006 (Meldeverordnung Eisenbahn -Eisb 2006)
Betra	Operating and construction instructions (Betriebs- und Bauanweisung)	MLN	10 <sup>6</sup>
BGBI	Federal Law Gazette (Bundesgesetzblatt)	NSA	National Safety Authority
BMVIT	Federal Ministry of Transport, Innovation and Technology (Bundesministerium für Verkehr, Innovation und Technologie)	ÖBB	Österreichische Bundesbahnen
Bmz	A particular type of coach	ORE B 55/RP8	Report produced by the former European Rail Research Institute
Bsb	Operating location description (Betriebsstellenbeschreibung)	“P”	“Passenger” brake regime
BUES2000	Safety system for level crossings	P-Wert	Calculated value of a brake setting
CSI	Common Safety Indicator	PZB	Intermittent automatic train control (Punktförmige Zugbeeinflussung)
CSM	Common Safety Method	RIV	Agreement governing the exchange and use of wagons between railway undertakings (in international traffic)
DB AG	Deutsche Bahn AG	RoLa	Block train formed of low-floor wagons
DB IS 2	Staff instruction for the maintenance of infrastructure installations (Dienstbehelf für die Erhaltung von Infrastrukturanlagen)	RS	Rolling stock
DV M26 / DV B29	ÖBB staff regulations (Dienstvorschrift)	RU	Railway undertaking
“E”	“Electric” brake regime	Sch2	A particular type of subsidiary signal (Schutzsignal 2)
EisbBBV	Railway Construction and Operation Regulations (Eisenbahnbau und –betriebsverordnung)	TSI	Technical Specification for Interoperability
EisbG	Railways Act 1957 (Eisenbahngesetz 1957)	UIC	International Union of Railways (Union internationale des chemins de fer)
EN	European Standard (Europäische Norm)	UUS	Accident Investigation Bureau (Unfalluntersuchungsstelle)
ERA	European Railway Agency	Vmax	Maximum speed of a vehicle (Fahrzeughöchstgeschwindigkeit)
ERRI/ORE	European Rail Research Institute	VO	Regulation (Verordnung)
EU	European Union	WÜS	Level crossing safety installation (Wegübergangssicherungsanlage)
“G”	“Goods” brake regime	ZSB	Supplementary Provisions to the Signalling and Operating Regulations (Zusatzbestimmungen zur Signal- und Betriebsvorschrift)
Hz	Herz		
IM	Infrastructure manager		

# ANNEX D: Important changes in legislation and regulation

	Legal reference	Date legislation comes into force	Reason for introduction (Additionally specify new law or amendment to existing legislation)	Description
<b>General national railway safety legislation</b>				
Legislation concerning the national safety authority	Federal Act concerning railways, rolling stock on railways and traffic on railways (Railways Act 1957 - EisbG), BGBl. I Nr. 25/2010	23 April 2010	Amendment of the Railways Act 1957 (EisbG) to transpose the "Third Railway Package"	Transposition in line with the directive firstly involving legislating for train drivers' training and competences in the interoperable railway system and secondly widening access rights for international passenger traffic.
Legislation concerning notified bodies, assessors, third-party bodies for registration, examination, etc.	Federal Act concerning railways, rolling stock on railways and traffic on railways (Railways Act 1957 - EisbG), BGBl. I Nr. 25/2010	23 April 2010	Amendment of the Railways Act 1957 (EisbG) to transpose the "Third Railway Package"	Transposition in line with the directive firstly involving legislating for train drivers' training and competences in the interoperable railway system and secondly widening access rights for international passenger traffic.
<b>National rules concerning railway safety</b>				
Rules concerning national safety targets and methods				
Rules concerning requirements for safety management systems and safety certification of railway undertakings				
Rules concerning requirements for safety management systems and safety authorisation of infrastructure managers				
Rules concerning requirements for wagon keepers				
Rules concerning requirements for maintenance workshops				
Rules concerning requirements for the authorisation of placing in service and maintenance of new and substantially altered rolling stock, including rules for exchange of rolling stock between railway undertakings, registration systems and requirements on testing procedures				
Common operating rules for the railway network, including rules relating to signalling and traffic procedures				

Rules laying down requirements for additional internal operating rules (company rules) that must be established by the infrastructure managers and railway undertakings				
Rules concerning requirements for staff executing safety critical tasks, including selection criteria, medical fitness and vocational training and certification	Federal Act concerning railways, rolling stock on railways and traffic on railways (Railways Act 1957 - EisbG), BGBl. I Nr. 25/2010	23 April 2010	Amendment of the Railways Act 1957 (EisbG) to transpose the "Third Railway Package"	Transposition in line with the directive firstly involving legislating for train drivers' training and competences in the interoperable railway system and secondly widening access rights for international passenger traffic.
Rules concerning the investigation of accidents and incidents including recommendations				
Rules concerning requirements for national safety indicators including how to collect and analyse the indicators				
Rules concerning requirements for authorisation for placing infrastructure in service (tracks, bridges, tunnels, energy, ATC, radio, signalling, interlocking, level crossings, platforms, etc.)				

## ANNEX E: Development of safety certification and authorisation – numerical data

### **E.1. Safety certificates in accordance with Directive 2004/49/EC**

		New	Updated/ amended	Renewed
E.1.1. Number of valid safety certificates <b>Part A</b> held in 2010 by railway undertakings	being registered in your Member State:	17	3	1
	being registered in another Member State:			

		New	Updated/ amended	Renewed
E.1.2. Number of valid safety certificates <b>Part B</b> held in 2010 by railway undertakings	being registered in your Member State:	17	3	1
	being registered in another Member State:	2		

			A	R	P
E.1.3. Number of applications for safety certificates <b>Part A</b> submitted in 2010 by railway undertakings	being registered in your Member State for:	new certificates	17		4
		updated/amended certificates	3		
		renewed certificates	1		

			A	R	P
E.1.4. Number of applications for safety certificates <b>Part B</b> submitted in 2010 by railway undertakings	being registered in your Member State for :	new certificates	17		4
		updated / amended certificates	3		
		renewed certificates	1		
	being registered in another Member State for:	new certificates	2		8
		updated / amended certificates			
		renewed certificates			

A = *accepted*: application accepted, certificate has already been issued

R = *rejected*: application rejected, no certificate was issued

P = *pending*: case is still pending, no certificate was issued in the year in question

E.1.5. List of states in which railway undertakings applying for a safety certificate Part B in your Member State have obtained their safety certificate Part A

- Germany
- The Netherlands
- Slovenia



## E.2. Safety authorisations in accordance with Directive 2004/49/EC

	New	Updated / amended	Renewed
E.2.1. Number of valid safety authorisations held by infrastructure managers registered in your Member State in 2010.	6		

		A	R	P
E.2.2. Number of applications for safety authorisations submitted by infrastructure managers registered in your Member State in 2010.	new authorisations			
	updated / amended authorisations			
	renewed authorisations			

A = *accepted*: application accepted, authorisation has already been issued

R = *rejected*: application rejected, no authorisation was issued

P = *pending*: case is still pending, no authorisation was issued in the year in question